A

JOURNEY FROM MADRAS

THROUGH THE COUNTRIES OF

MYSORE, CANARA, AND MALABAR,

PERFORMED UNDER THE ORDERS OF

THE MOST NOBLE THE MARQUIS WELLESLEY,

GOVERNOR GENERAL OF INDIA,

FOR THE EXPRESS PURPOSE OF INVESTIGATING THE STATE OF

AGRICULTURE, ARTS, AND COMMERCE; THE RELIGION, MANNERS, AND CUSTOMS; THE HISTORY NATURAL AND CIVIL, AND ANTIQUITIES,

IN THE DOMINIONS OF

THE RAJAH OF MYSORE,

AND THE COUNTRIES ACQUIRED BY

THE HONOURABLE EAST INDIA COMPANY,

IN THE LATE AND FORMER WARS, FROM TIPPOO SULTAUN.

35436

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FELLOW OF THE ROYAL SOCIETY, AND OF THE SOCIETY OF ANTIQUARIES OF LONDON; FELLOW OF THE ASIATIC SOCIETY OF CALCUTTA; AND IN THE MEDICAL SERVICE OF THE HONOURABLE COMPANY ON THE BENGAL ESTABLISHMENT.

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ERRATA TO VOL. II.

Page. line.
106 15, for *Minimos*, read *Minimoo*.
117 15, for *roduces*, read *produces*.
155 4, for *none*, read *some*.
171 22, for *Madura*, read *Muduru*.
191 12, for *Coliagala*, read *Colcagala*.
228 4, for *Bahwani*, read *Bhawani*.
232 4, for *Frotalaria*, read *Crotalaria*.
342 17, for *Pelon*, read *Pelou*.
347 22, for *Malaya*, read *Malayála*.
352 18, for *In*, read *An*.
355, &c. in the Calendar of *Malayala*, for *Tamul* months, read *Malabar* months.
368 6, for *Vir' Pato*, read *Vir' Patom*.
370 22, for *one-twenty-first*, read *a one-and-twentieth*.
408 20, and 25, for *Kirüm*, read *Kiriim*.
436 10, for *Trimbucum*, read *Irimbucum*.
445 13, for 5 *Fanams*, read 50 *Fanams*.
453 3, for *land*, read *bond*.
491 27,
493 12, 16, 17, 18, 30.
494 5,
497 last,
} for *Pariar* and *Parian*, read *Parriar* and *Parrian*.

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CHAPTER VII.

FROM SIRA TO SERINGAPATAM.

AUGUST 7th, 1800.—Having been informed, that in the woods to the north and north-east of *Sira* many cattle are bred, and that in the hills to the eastward much steel is made, I determined to take a short journey in these directions, although it was in some measure retracing my steps. For the cattle, *Pauguda* and *Niddygul* are the principal places; there being twelve large herds in the one district, and ten in the other. These places, however, being much out of my way, I determined to proceed to *Madigheshy*, where, I was told, there were several herds. In the morning I went five cosses to *Chandra-giri*, or Moon-hill, which is a poor village at the foot of a high rock east from *Badavana-hully*. Of course, I had before travelled the greater part of the road. In the neighbourhood of *Chandra-giri* are some fine *betel-nut* gardens. Formerly these amounted to five *Candacas* of land, or 150 acres. In the time of a dreadful famine, which happened about thirty-six years ago, these gardens suffered much, owing to the wells having become dry; for they are all watered by the machine called *Capily*. They suffered still more owing to the desertion of their proprietors, on account

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August 7.

Betel-nut gardens.

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August 7.

of the assessment which was imposed by *Tippoo*, to enable him to pay the contribution which Lord Cornwallis exacted. They are now reduced to about 45 acres, or $1\frac{1}{2}$ *Candaca*.

State of the country.

The tank here ought to water 6 *Candacas* of land, or 180 acres; but, from being out of repair, it at present supplies one sixth part only of that extent. The farmers here allege, that in the last twenty years they have had only one season in which there was as much rain as they wanted. In this district of *Madhu-giri* some of the villages want $\frac{1}{4}$, some $\frac{1}{2}$, and some $\frac{2}{3}$ of the cultivators which would be necessary to labour their arable lands, and some have been totally deserted.

August 8.

8th *August*.—I went three cosses to *Madighesky*. Part of the road lay in the country ceded to the *Nizam*, who in the neighbourhood of *Ratna-giri* has got an insulated district, in the same manner as the *Rája* of *Mysore* has one round *Pauguda*. The whole country through which I passed was laid waste by the *Marattah* army under *Purseram Bhow*; and as yet has recovered very little. In the *Nizam's* territory the villages were totally deserted. The greater part of the country is now covered with low trees, but much of it is fit for cultivation. On my arrival at *Madighesky*, I was not a little disappointed on being told by the civil officers, that in the whole district there was not a single cow kept for breeding; and that the only cattle in the place were a few cows to give the village people milk, and the oxen necessary for agriculture.

Madighesky.

Madighesky is a fortress situated on a rock of very difficult access, and garrisoned by a few Company's seapoys; in order, I suppose, to prevent any of the ruffians in the *Nizam's* country from seizing on it, and rendering it a strong-hold to protect them in their robberies. At the foot of the hill is a well fortified town, which was said to contain 100 houses; but that account was evidently greatly under-rated. In it were 12 houses of farmers, and twenty of *Bráhmans*, who, except two officers of government, were all supported by the contributions of the industrious part of the community; for

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Tippoo had entirely resumed the extensive charity lands which they formerly possessed. Their houses were, however, by far the best in the town, and occupied, as usual, the most distinguished quarter. The place is now dependant on *Madhu-giri;* but during the former government was the residence of an *Asoph,* or lord-lieutenant. His house, which is dignified with the title of a *Mahal,* or palace, is a very mean place indeed. The Mussulman *Sirdars* under *Tippoo* were too uncertain of their property to lay out much on buildings; and every thing that they acquired was in general immediately expended on dress, equipage, and amusement.

The place originally belonged to a *Polygar* family; a lady of which, named *Madigheshy,* having burned herself with her husband's corpse, her name was given to the town; for, above the *Ghats,* this practice, so far as I can learn, has been always very rare, and consequently gave the individuals who suffered a greater reputation than where it is constantly used. *Madigheshy* was afterwards governed by *Ránís,* or princesses, of the same family with the heroine from whom it derived its name. From them it was conquered by the family of *Chicuppa Gauda,* who retained it long after the *Polygars* of *Mysore* had deprived them of their original possessions, *Madhu-giri* and *Chin'-náráyan'-durga.* During the invasion of Lord Cornwallis, a descendant of *Chicuppa Gauda* came into this country; and, when he found that the place must return to the *Sultan's* dominion, he cruelly plundered it of the little that had escaped *Marattah* rapacity. He did not leave the place, which is extremely strong, till *Commur ud' Deen Khan* came into the neighbourhood with a considerable force.

Want of water.

In the vicinity there is very little cultivation; owing, as the natives say, to the want of rain. The late *Sultan* three years ago expended 700 *Pagodas* (about 230*l.*) in repairing a tank, that ought to water 8 *Candacas,* or 240 acres of rice-land: but in no year since has the rain filled it, so as to water more than what sows two *Cándacas.* The wells here are too deep for the use of the machine called *Capily.*

CHAPTER VII.

August 9. Fears of the natives.

9th *August*.—The native officer commanding the seapoys in the fort having informed me that I was deceived concerning the herds of breeding cattle, and the village officers being called, he gave such particular information where the herds were, that it became impossible for them to be any longer concealed. The people, in excuse for themselves, said, they were afraid that I had come to take away their cattle for the use of Colonel Wellesley's army, then in the field against *Dundia*; and, although they had no fear about the payment, yet they could not be accessory to the crime of giving up oxen to slaughter. In the morning I took the village officers with me, and visited some of the herds; but the whole people in the place were in such agitation, that I could little depend on the truth of the accounts which they gave; and I do not copy what they said, as I had an opportunity soon after of getting more satisfactory information.

Appearance of the country.

The country round *Madigheshy* is full of little hills, and is overgrown with copse wood. The villages of the *Goalas*, or cow-keepers, are scattered about in the woods, and surrounded by a little cultivation of dry-field. The want of water is every where severely felt, and the poor people live chiefly on *Horse-gram*, their *Ragy* having failed. In many places the soil seems capable of admitting the cultivation to be much extended.

Quarries.

Near the town is a fine quarry, of a stone which, like that found at *Ráma-giri*, may be called a granitic porphyry.

Here also may be easily quarried fine masses of gray granite.

August 10. Appearance of the country.

10th *August*.—In the morning I went three cosses to *Madhu-giri*. The road led through pretty vallies, surrounded by detached rocky hills. These vallies showed marks of having once been in a great measure cultivated, and contained the ruinous villages of their former inhabitants. Ever since the devastation committed by *Purseram Bhow*, and the subsequent famine, they have been nearly waste; and many of the fields are overgrown with young trees. A few wretched inhabitants remain, and a few fields are cultivated;

and it is said, that this year greater progress would have been made toward the recovery of the country, had not the season been remarkably dry and unfavourable. CHAPTER VII. August 10.

On my arrival at *Madhu-giri*, and questioning *Trimula Náyaka* on the subject, I found, that every town and village in this hilly country had herds of breeding cattle. One of the herds I had met on the road; but they were so fierce, that, without protection from the keepers, it would have been unsafe to approach them. I determined, therefore, to remain a day at *Madhu-giri* and examine the particulars. Breeding herds of black cattle.

11th *August*.—I went with *Trimula Náyaka*, and examined three herds of breeding cows, one of them chiefly his own property. From him, and from some of the most sensible *Goalas*, I afterwards took the following account. August 11.

In this country the *Cadu Goalas*, or *Goalaru*, are those who breed cattle. Their families live in small villages near the skirts of the woods, where they cultivate a little ground, and keep some of their cattle, selling in the towns the produce of the dairy. Their families are very numerous, seven or eight young men in each being common. Two or three of these attend the flocks in the woods, while the remainder cultivate their fields, and supply the towns with firewood, and with straw for thatch. Some of them also hire themselves to the farmers as servants. They are a very dirty people, much worse than even the generality of the people of *Karnáta*; for they wear no cloathing but a blanket, and generally sleep among the cattle; which, joined to a warm climate, and rare ablutions, with vermin, itch, ring-worms, and other cutaneous disorders, render them very offensive. *Goalas*, or cow keepers.

In criminal matters relating to cast, the *Goalas* are under the jurisdiction of a renter, who in the language of *Karnáta* is called *Beny Chavadi*, or in the Mussulman dialect *Musca Chavadi*, which signifies the head of the butter-office. He resides at the capital, and pays to government an annual revenue. He goes to every village where any

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regular families of *Goalas* are established, and from each levies the tax which they pay to government for liberty to pasture their flocks on its property. In this neighbourhood, every family, whether it consists of many persons or of few, or whether it be rich or poor, pays the same tax; which is indeed a mere trifle, being only six *Fanams*, or about 4*s.* a year. For this small sum they are exempted from any tax or rent for grass, and may feed their cattle in whatever woods they please. In some villages there is often only one family of privileged *Goalas*, in others there are two. If a family change its place of abode, it must always pay its tax, and also certain dues owing to the temples, at its original village. The same happens to the individuals of a family, which sometimes may occupy ten houses; the whole of them, wherever settled, must send their share of the tax to the head of the family. The head man of the family is generally the eldest son of the last man who held the office; but in case of his being incapable, from stupidity, of transacting business, the *Beny Chavadi* appoints an acting chief, or *Ijyamána.* There are some *Goalas*, who are not privileged, nor under the authority of the *Beny Chavadi*, who in proportion to the extent of their flocks pay a rent for the grass to the *Gydda Cavila*, or keeper of the forest. This also is very moderate; 100 cows paying annually five *Fanams*, or 3*s.* 4*d.*

The *Ijyamánas*, or hereditary chiefs of *Goala* families, settle all disputes; but the *Beny Chavadi* punishes all transgressions against the rules of cast. When the flocks of any family have perished, either by war or pestilence, the sufferers go and solicit a new stock from the other persons of the cast, each of whom will give a beast or two for that purpose. Should they be so unreasonable as to refuse this bounty, the *Beny Chavadi* will compel them to assist their distressed neighbours.

There are a great many different races of *Goalas*, with whom the *Cadu Goalas* neither eat nor intermarry. These last are a tribe of *Karnáta;* and persons, who consider themselves as of any rank,

marry into such families only, with the purity of whose origin they are well acquainted; for in this tribe there is a very numerous race of *Cutigás,* or bastards. Widows who prefer disgrace to celibacy, and women who commit adultery, connect themselves with the bastard race, who also keep *Hadras,* or concubines; a practice that is not permitted to *Goalas* of a pure descent. These, however, may keep as many wives as they please. A woman who is incontinent with a man of any other cast, is inevitably excommunicated. If the adultery has been committed with a *Goala,* she will be received as a *Cutiga;* and both the man who seduced her, and her husband, are fined in twelve *Fanams,* or about 8*s.* The *Goalas* are not permitted to drink spirituous liquors, nor to eat fish, or hogs; but they may eat sheep, goats, deer, and fowls. They bury the dead, and have no knowledge of a future life, except believing that those who die unmarried will become *Virigas,* whom they worship in the usual manner. The gods peculiar to their cast are, *Jinjuppa* and *Ramuppa.* The *Bráhmans* say, that the former is the same with *Lechmana,* the younger brother of *Ráma;* but of this the *Goalas* are ignorant. These poor people have a small temple, containing two shapeless stones; one of which they call *Jinjuppa,* and the other *Ramuppa.* The *Pujári,* or priest, is a *Goala,* whose office is hereditary; but who intermarries with the laity. Sacrifices are not offered to these idols; they are worshipped by offerings of fruit, flowers, and the like. There is a forest called *Gyddada Mutráya,* to which the *Goalas* repair, and sacrifice animals to *Mutráya,* who is represented by the first stone which the votaries find in a convenient place. On this occasion there is a great feast; and any *Dáséri* (religious mendicant) that attends obtains the head of the sacrifice, and some bread. They sacrifice also to the goddess *Marima.* Some of the *Cadu Goalas* take the vow of *Dáséri;* but none of them can either read or write. Their *Guru* is a *Sri Vaishnavam Bráhman;* but they neither know his name nor where he lives. He comes once in two or three years, admonishes them to wear the mark of *Vishnu,* and gives them holy

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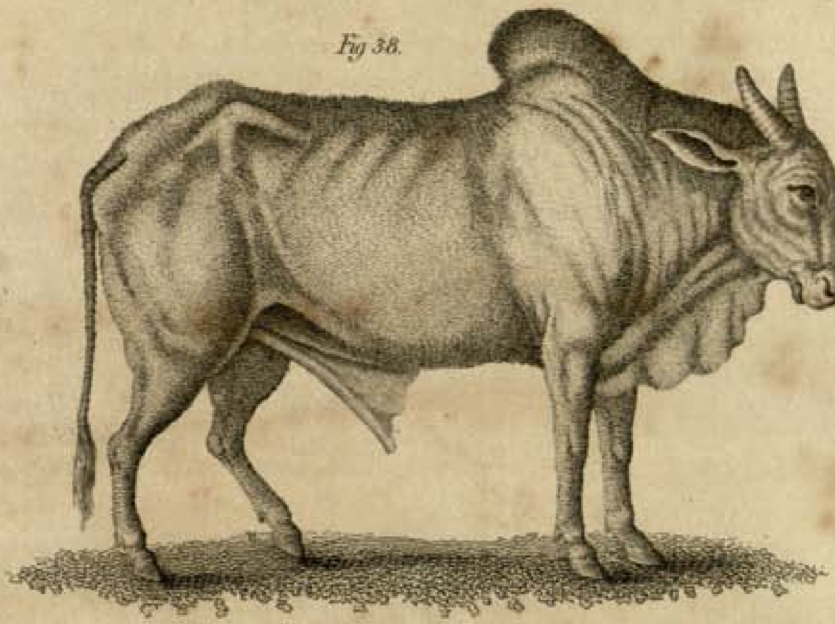
water. Each person presents him with a *Fanam;* and, if he happen to be present at a marriage, he gets a measure of rice. Although these people call their *Guru* a *Bráhman*, it is more probable that he is a *Vaishnavam* or *Satánana;* for the *Panchánga*, or astrologer of the village, does not act as *Puróhita* at any of their ceremonies, and they are not a tribe that can claim to be of *Súdra* origin.

Oxen of the Zebu kind.

The race of oxen in this country may be readily distinguished from the European species, by the same marks that distinguish all the cattle of *India;* namely, by a hump on the back between the shoulders, by a deep undulated dewlap, and by the remarkable declivity of the *os sacrum.* But the cattle of the south are easily distinguished from those of *Bengal* by the position of the horns. In those of *Bengal* the horns project forward, and form a considerable angle with the forehead; whereas in those of the south the horns are placed nearly in the same line with the *os frontis.* In this breed also, the prepuce is remarkably large; and vestiges of this organ are often visible in females; but this is not a constant mark.

Of this southern species there are several breeds of very different qualities. Plates XIII. XIV. and XV. contain sketches of some of them. Above the *Ghats*, however, two breeds are most prevalent. The one is a small, gentle, brown, or black animal: the females are kept in the villages for giving milk, and the oxen are those chiefly employed in the plough; their short, thick make enabling them to labour easily in the small rice-plots, which are often but a few yards in length. This breed seems to owe its degeneracy to a want of proper bulls. As each person in the village keeps only two or three cows for supplying his own family with milk, it is not an object with any one to keep a proper bull; and as the males are not emasculated until three years old, and are not kept separate from the cows, these are impregnated without any attention to improvement, or even to prevent degeneracy. Wealthy farmers, however, who are anxious to improve their stock, send some cows to be kept in the folds of the large kind, and to breed from good bulls. The cows

Fig 38.



SERINGAPATAM BULL.

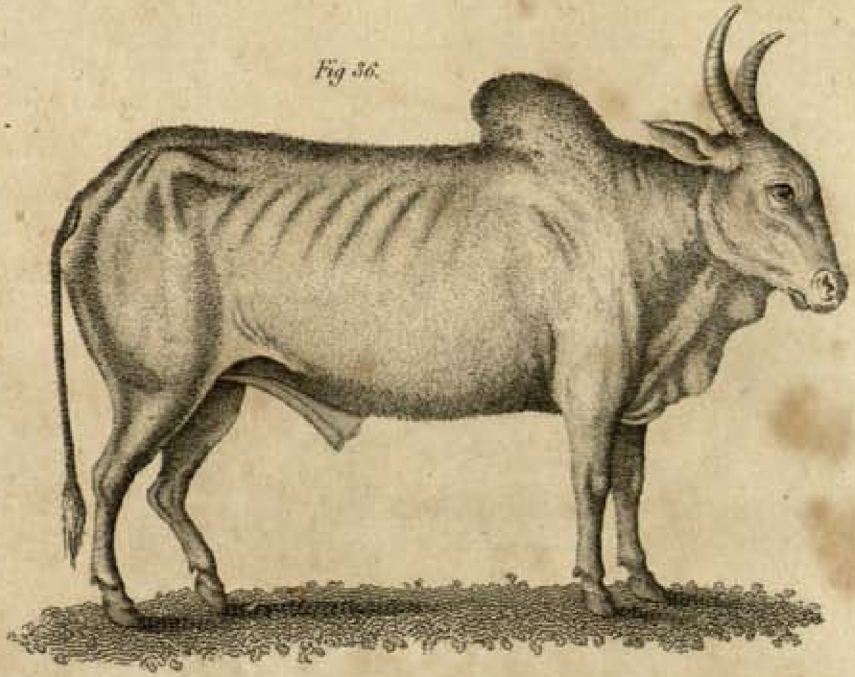
from the late Sultan's herd.

Fig 39.

SERINGAPATAM OX.

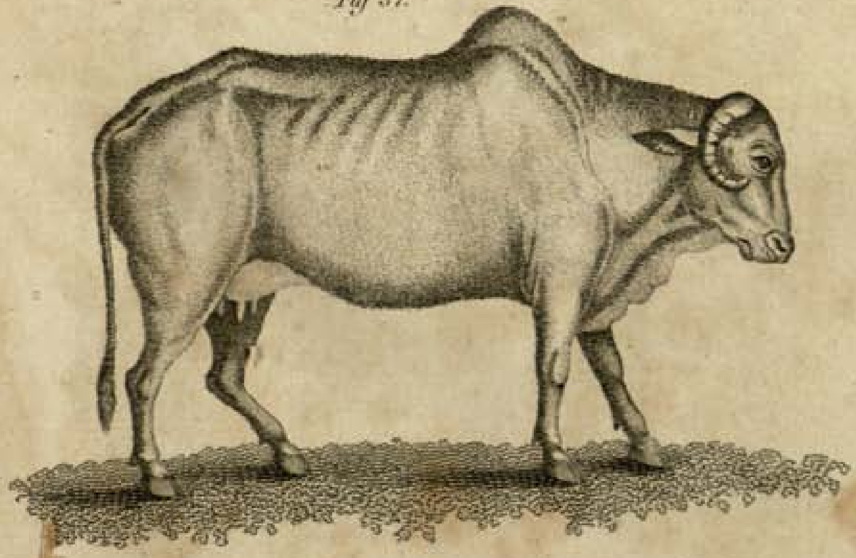
Warner sc.

Fig 36.



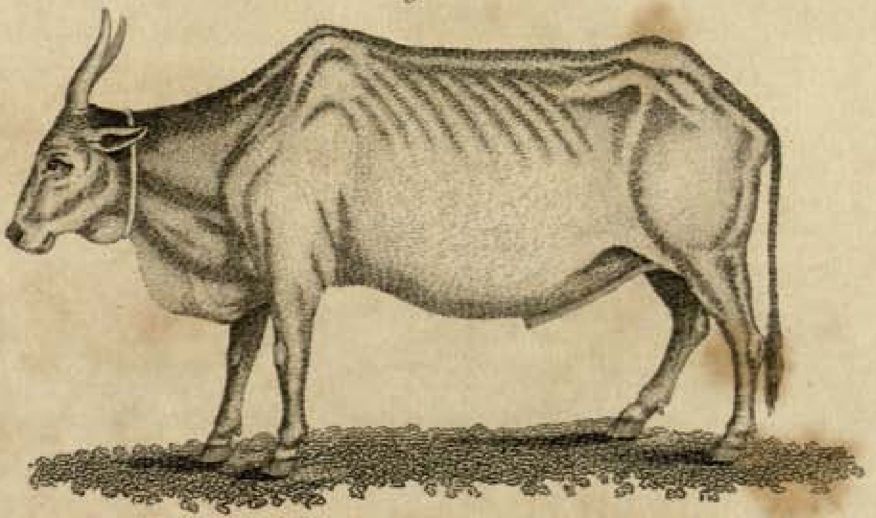
MADHU-GIRI BULL.

Fig 37.



MADHU-GIRI COW.

Fig 34.



MADRAS OX.

Fig 35.

MADHU-GIRI OX.

Warner sc.

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sprung from these always remain at the fold, and in the third generation lose all marks of their parents degeneracy. The males are brought home for labour, especially in drawing water by the *Capily*; and about every village may be perceived all kinds of intermediate mongrels between the two breeds.

In the morning the village cows are milked, and are then collected in a body, on the outside of the wall, with all the buffaloes and oxen that are not employed in labour. About eight or nine in the morning the village herdsman, attended by some boys or girls, drives them to the pasture. If the flock exceeds 120, two herdsmen must be kept, and their herds go in different directions. The pastures are such waste lands as are not more than two miles distant from the village, and are in general poor; the tufts of grass are but thinly scattered, and the bare soil occupies the greater space. This grass, however, seems to be of a very nourishing quality, and the most common species is the *Andropogon Martini* of Dr. Roxburgh's manuscripts. At noon, and at four o'clock, they are driven to water, to raise which the *Capily* is often employed. At sun-set they are brought home; and in the rainy season the cow-house is smoked, to keep away the flies. In the back yard of every house stands a large earthen pot, in which the water used for boiling the grain consumed by the family is collected; and to this are added the remains of curdled milk, of puddings, and a little flour, oil-cake, or cotton seed. This water becomes very sour, and is given as a drink to the cows in the evening, when they are again milked. At night, in the rainy season, the cattle get cut grass, which is collected in the woods, and about road sides: this last is the most nutritious, the very succulent roots being cut up with the leaves, and the situation preventing the harsh stems from growing. In dry weather, the cattle at night have straw. Those who can afford it, chiefly *Bráhmans*, give their milch-cows cotton-seed and *Avaray*. The working cattle ought to have *Horse-gram*. After the

CHAPTER VII. August 11. milk for the family has been taken, the calves are allowed to suck; and unless they be present, as is usual with all the Indian race of cattle, the cows will give no milk. The cows here go nine months with calf, begin to breed at three years of age, and continue until 15 years old. They breed once a year, but give milk for six months only. A good cow of the village kind gives twice a day from four to six *Cucha Seers*, or from about $2\frac{1}{2}$ to $3\frac{3}{4}$ pints ale measure.

The cattle of the other breed are very fierce to strangers, and nobody can approach the herd with safety, unless he be surrounded by *Goalas*, to whom they are very tractable; and the whole herd follows, like dogs, the man who conducts it to pasture. The bulls and cows of this breed never enter a house; but at night are shut up in folds, which are strongly fortified with thorny bushes, to defend the cattle from tigers. At 5 years old the oxen are sold, and continue to labour for twelve years. Being very long in the body, and capable of travelling far on little nourishment, the merchants purchase all the best for carriage. To break in one of them requires three months labour, and many of them continue always very unruly. The bulls and cows were so restless, that, even with the assistance of the *Goalas*, I could not get them measured; but the dimensions of a middle sized ox were as follow: From the nose to the root of the horn, 21 inches. From the root of the horn to the highest part of the hump, 30 inches. From the height of the hump to the projecting part of the *ossa ischia*, 45 inches. From the hump to the ground 46 inches. From the top of the hip-bones to the ground 51 inches.

The cows of this breed are pure white; but the bulls have generally an admixture of black on the neck and hind quarters. These cattle are more subject to the *disease* than the cattle living in villages; and once in three years an epidemic generally prevails among them. It is reckoned severe when one-third of a man's stock perishes, although sometimes the whole is lost; but in general, as all

the cows are reserved for breeding, the loss occasioned by one epidemic is made up before another comes. CHAPTER VII.

These cattle are entirely managed by *Goalas;* and some of these people have a considerable property of this kind: but the greater part of these breeding flocks belong to the rich inhabitants of towns or villages, who hire the *Goalas* to take care of them; and, for the advantage of better bulls, send to the fold all their spare cows of the village breed. In procuring bulls of a good kind, some expense is incurred: for the price given for them is from 10 to 20 *Pagodas* (3*l.* 7*s.* 1*d.* to 6*l.* 14*s.* 2*d.*), while from 8 to 15 *Pagodas* is the price of an ox of this kind. Care is taken to emasculate all the young males that are not intended for breeding, before they can injure the flock. August 11.

The *Goalas* live in huts near the small villages, in parts of the country that contain much uncultivated land, and are surrounded by the folds, in which they always keep as many cattle as will cultivate a little land, and as the pasture near the place will maintain. But as local failures of rain frequently occasion a want of forage near their huts, some of the men drive their flocks to other places where the season has been more favourable, and either take up their abode near the huts of some other *Goalas*, giving them the dung of their fold for the trouble which they occasion, or live in the midst of woods, in places where the small reservoirs, called *Cuttays*, have been formed to supply their cattle with water. All the breeding and young cattle, with all the sheep and goats, are carried on these expeditions; but a few labouring cattle and the buffaloes are left at home in charge of the women, and of the men who can be spared from accompanying the flocks. During the whole time that they are absent the *Goalas* never sleep in a hut; but, wrapped up in their blankets, and accompanied by their dogs, they lie down among the cattle within the folds, where all night they burn fires to keep away the tigers. This however is not always sufficient, and these ferocious animals sometimes break through the fence, and

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kill or wound the cattle. The men have no fire-arms, the report of which would terrify the cattle; and for driving away the tiger, they trust to the noise which they and their dogs make. They are also much distressed by robbers, who kill or carry away the sheep and goats; but unless it be a numerous rabble that call themselves the army of a *Polygar*, no thieves can annoy their black cattle; for these are too unruly to be driven by any persons but their keepers, and the most hardened villain would not dare to slaughter an animal of this sacred species.

Exclusive of the buffaloes, which are managed as I have described at *Seringapatam*, the cattle of the *Goalas* have nothing to eat, except what they pick up in the wastes. The cows and sheep eat grass, and the goats the leaves of every kind of tree, bush, or climber, those of the *Periploca emetica* W: excepted. Each kind of cattle must have a separate fold. From this, when at a distance from home, they are driven out at sun-rise, as then the calves get all the milk, except a little used by the herdsmen; but near the village the cows are milked every morning; and this operation, which is performed by the men, takes up two hours. From each about two *Seers*, or $1\frac{1}{4}$ pint, only are taken. They are indeed miserably lean, and at twenty yards distance their ribs may be distinctly counted. The cattle are once a day conducted to the water; and the calves, after they are a month old, follow their mothers to pasture: before that they remain in the fold, under the charge of the man who cooks.

When a rich man sends a flock of a hundred cows under the care of the *Goalas*, he allows wages for two men, each of whom has annually 60 *Fanams*, with a blanket and pair of shoes; in all, worth about 2*l.* 5*s.* 1*d.*; and when they come on business to their master's house, they get their victuals. For grass he pays also five *Fanams* a year to the keeper of the forest. These (3*s.* 4*d.*) with the two men's wages, making in all 4*l.* 13*s.* 2*d.* are the whole of his annual expence. The profits, when no disaster happens, will be: for *Ghee*,

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or boiled butter, 8 *Pagodas;* for sour curds, butter-milk, &c. 4 *Pagodas;* for 20 three-year-old bullocks 60 *Pagodas;* in all 72 *Pagodas*, or 720 *Fanams*, or 24*l.* 3*s.* 6*d.*: from this deduct the expense, and there will remain 19*l.* 10*s.* as the gain upon the original stock, which may be estimated at 150 *Pagodas* for the 100 cows, and 30 *Pagodas* for the two bulls; in all, 1300 *Fanams*, or 43*l.* 13*s.* which is almost 45 per cent. annually on the original value of the stock.

Sheep and goats.

The *Goalas* keep many *Curis*, and *Maykays*, or sheep and goats. These always accompany them in their expeditions; and even those who are servants to the rich men generally carry with them flocks of sheep and goats, or are accompanied by some men possessed of that stock; so that less than four men never go together. The sheep are more subject to the *disease* than the cows, and the goats still more so than the sheep. A flock of a hundred small cattle requires the attendance of two men, and two dogs; and these have more profit from their own small herd, than the men who serve the rich to take care of cows. This they acknowledge themselves; yet they will only allow the profits of the 100 goats to amount to 100 *Fanams* a year; that is to say, 80 *Fanams* for 30 three-year-old males, and 20 *Fanams* for boiled butter. They eat the old females, and give the keeper of the forest two males for every hundred, in order to obtain his permission to cut the trees, that the goats may procure leaves.

Stock of the *Goalas*.

A *Goala*, that is reckoned rich, will have 200 cows, 30 female buffaloes, 50 ewes, and 100 she goats; and will keep as many labouring oxen as will work three ploughs. Such a man, *Trimula Náyaka* says, besides paying rent, and finding his family in provisions, will annually make 100 *Pagodas*, or 33*l.* 10*s.* 10*d.* His clothing, being a blanket, costs a mere trifle; and part of the money he expends in the marriages of the younger branches of the family, and in religious ceremonies; the remainder is in general buried, and a great deal of money is in this way lost; as when the men get

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old, and stupid, they forget where their treasures are hidden, and sometimes die without divulging the secret.

August 11. Stock of farmers.

The farmers also keep small flocks of goats and sheep, which are sent, under the charge of a boy, to the pastures near the village. In the evening they are brought home; when the goats are taken into the house, and the sheep are folded on the field of their proprietor.

Management of the milk.

The cattle in this country, as I have already mentioned, are milked by the men, who carry the produce home to the women; for they prepare the butter. The milk, on its arrival, is immediately boiled for at least one hour; but two or three hours are reckoned better. The earthen pots, in which this is done, are in general so nasty, that after this operation no part of the produce of the dairy is tolerable to an European; and whatever they use, their own servants must prepare. The natives never use raw milk, alleging that it has no flavour. The boiled milk, that the family has not used, is allowed to cool in the same vessel; and a little of the former days *Tyre*, or curdled milk, is added to promote its coagulation, and the acid fermentation. Next morning it has become *Tyre*, or coagulated acid milk. From the top of each potful, five or six inches of the *Tyre* are taken, and put into an earthen jar, where it is churned by turning round in it a split *Bamboo*. This is done very expertly by a rope, which, like that of a turner's lathe, is passed two or three times round the *Bamboo*, and a quick motion in contrary directions is given by pulling first one end of the rope, and then the other. After half an hour's churning, some hot water is added, and the operation is repeated for about half an hour more; when the butter forms. The natives never use butter; but prefer, what is called *Ghee*, not only as that keeps better, but also as it has more taste and smell. In order to collect a quantity sufficient for making *Ghee*, the butter is often kept two or three days; and in that time a warm climate renders it highly rancid. When a sufficient quantity has been collected, it is melted in an earthen pot,

and boiled until all the water mixed with the butter has evaporated. It is then taken from the fire; and, for what reason I could not learn, a little *Tyre* and salt, or *Betel-leaf* and reddle, are added. It is kept in pots, has a very strong smell, and is best preserved from spoiling by a little tamarind and salt, which at any rate enter into the dishes of all the natives that can afford to use *Ghee*. It is eaten when even a year old. Three *Pucka Seers*, or 252 *Rupees* weight of buffaloes milk, give 100 *Rupees* weight of *Ghee*; the same quantity of cow and buffalo milk mixed, as usual, give 80 *Rupees* weight; cow milk alone gives 60 *Rupees* weight, and goat milk only 40 *Rupees* weight.

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12th *August*.—Having been informed, that *Chin'-náráyan'-durga* was distant three cosses, I ordered my tents to be pitched at that place; but on coming up, I found that the distance was only one coss. In this country, it is indeed very difficult to get any accurate information concerning routes and distances. The road leads through a very narrow rugged valley, capable of very little cultivation. It is situated in the highest part of the country, the water from its north end running into the northern *Pinákaní*, while the *Cávéri* receives the torrent flowing from its southern extremity. *Chin'-náráyan'-durga*, by its situation, is a strong place, and is garrisoned by the troops of the *Mysore Rája*. It is greatly inferior in appearance to *Madhu-giri*, although it is said to have been the favourite residence of *Chicuppa Gauda*. The town is the *Kasba*, or capital of a district, but is very poor. Nothing can be rougher than the neighbouring country, which at first sight appears a mass of rocks and bare hills thrown confusedly together; but on a nearer inspection, many fertile spots are observed.

August 12. Appearance of the country.

In the neighbouring woods is found abundance of the *Popli* bark, which I have frequently mentioned as a dye, and as an article of export. It is the bark of the root of a large scandent plant, which climbs to the top of the highest trees. I saw neither flower nor fruit, so can say nothing of its botanical affinities; and the specimens

Popli bark.

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of the stem and leaves were not known to Dr. Roxburgh. It is collected by some *Baydarus*, who are in the service of the *Gydda Cavila*, or keeper of the forest.

Appearance of the country.

13th *August*.—I went three cosses to *Tavina Caray*, in company with the *Amildar*, who seems to be a very industrious man. He says, that last year he brought 200 ploughs into his district, and that 200 more would be required for its full cultivation. Near *Chin'-náráyan'-durga* the country, for the most part, consists of a rugged valley surrounded by hills; but the fields between the rocks were formerly cleared, and well cultivated, and are said to be very favourable for *Ragy*, the rock enabling the soil to retain moisture. Among these rugged spots we visited some iron and steel forges, which had indeed induced me to come this way. The information procured on this subject, is as follows.

Iron mines.

Iron is smelted in various places of the following *Talucs*, or districts; *Madhu-giri*, *Chin'-náráyan'-durga*, *Hagalawadi*, and *Déva-ráya-durga*. In the first two districts the iron is chiefly made from the black-sand which the small torrents formed in the rainy season bring down from the rocks. In the two latter districts, it is made from an ore called here *Cany Callu*, which is found on the hill *Kin-dalay Guda*, near *Muga-Náyakana-Cotay* in the *Hagalawadi* district. A little of the same iron ore is also procured from a hill, called *Kaymutty*, near *Muso-conda* in the district of *Chica-Náyakana-Hully*.

The manner of smelting the iron ore, and rendering it fit for the use of the blacksmith, is the same here as near *Magadi*. The people belonging to the smelting-house are four bellows-men, three men who make charcoal, and three women and one man who collect and wash the sand. They work only during the four months in which the sand is to be found; and for the remainder of the year they cultivate the ground, or supply the inhabitants of towns with fire-wood. The four men relieve each other at the bellows; but the most skilful person takes out the iron and builds up the furnace;

on which account his allowance is greater. In each furnace the workman puts first a basket (about half a bushel) of charcoal. He then takes up as much of the black sand as he can lift with both his hands joined, and puts in double that quantity. He next puts in another basket of charcoal, and the fire is urged with the bellows. When the first charcoal that has been given burns down, he puts in the same quantity of sand, and one basket of charcoal; and does this again, so soon as the furnace will receive a farther supply. The whole quantity of sand put in at one smelting measures 617 cubical inches, and weighs, when dry, about $42\frac{3}{4}$ lb. avoirdupois. This gives a mass of iron, which, when forged, makes 11 wedges, each intended to make a ploughshare, and weighing fully $1\frac{82}{100}$ lb. The workmen here, therefore, procure from the ore about 47 per cent. of malleable iron; but, as usual in India, their iron is very impure.

In the forging-house are required 3 hammer-men, one man to manage the forceps, 2 bellows-men, and 4 men to supply charcoal, which for this purpose is always made of the *Bamboo*. Every day three furnaces are smelted, and 33 wedges forged. The workmen are always paid by a division of the produce of their labour; and every fourth day, or when 132 pieces have been prepared, the division is made as follows.

	Pieces.
To the proprietor - - - - -	35
To the *Panchála*, who is the fore-man at the forge -	10
To the fore-man at the smelting-house - -	8
To one of the bellows-men, who removes the ashes and dross	5
To two of the women, who wash the sand, at 5 each -	10
To the remaining 16 persons, at 4 each - -	64
	132

The *Panchála*, or black-smith, out of his wages, is bound to find all the iron instruments, such as the anvil, the hammers, and the forceps. The proprietor defrays all other expenses; and these are,

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	Fanams.
To the keeper of the forest, for permission to make charcoal	100
To the *Gauda*, or chief of the village, for leave to gather iron sand - - - - - -	40
To ditto for furnace rent - - - -	15
To the *Sunca*, or collector of customs - -	30
To a pair of bellows for the smelting-house -	42
To ditto for the forge - - - -	24
To sacrifices - - - -	15
To charity for the *Bráhmans* - -	10
	Fanams 276

The buildings are so mean that they go for nothing; and at the beginning of the season are put up by the workmen in the course of a day.

Relative value of the two ores.

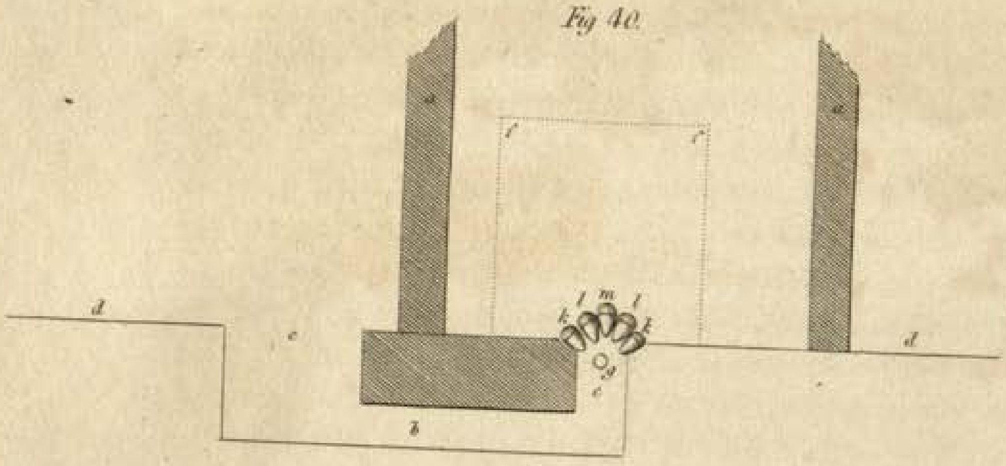
The stone-ore is made into iron exactly in the same manner; the quantity put into the furnace, and the produce, being nearly the same. The iron from the stone ore is reckoned better for all the purposes to which malleable iron is applied, but it sells lower than the iron made from the sand; for this last is the only kind that can be made into steel. The stone-iron sells at 6 pieces for the *Fanam;* and the people who work it are paid by daily wages. The wedges that it forms are larger than those of the sand iron, and weigh from 3 to 4 *Seers* each; so that this iron costs about 6*s.* 10*d.* a hundred-weight. The iron made from the sand sells at four pieces for the *Fanam,* or about 10*s.* 4*d.* a hundred-weight, the pieces weighing, according to estimate, only three *Seers.* I am inclined, however, to think, that on an average they weigh at least a tenth part more; but it would be difficult to ascertain this, as the pieces differ considerably in size, and are never sold by weight.

Error in the foregoing account.

It must be evident, that in this account the head-man, wishing to conceal his profit, deceived us. For thirty dividends can only take place in the course of four months; and, each dividend giving

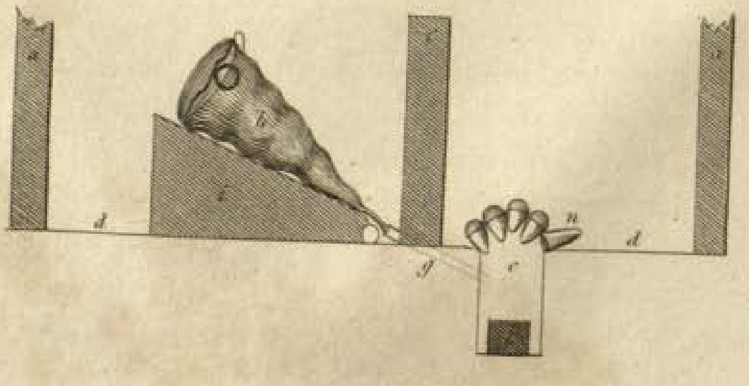
Section of a steel furnace in the direction of the Ash-pit.

Fig 40.



Section of a steel furnace at right angles to the Ash-pit.

Fig 41.



him 35 wedges of iron, he will receive in all 1050 pieces, which, at the usual price, are worth only $262\frac{1}{2}$ *Fanams;* so that in the course of the year, his expenses being 276 *Fanams*, he would lose $13\frac{1}{2}$ *Fanams*, while the lowest workman gets monthly $7\frac{1}{2}$ *Fanams*, or about 5*s.* which is more than is earned by the common labourers of the country. The point in which I think he attempted to deceive was in the number of days that the people wrought. If they smelted every day in the year, his profits would be very great; but allowing for many interruptions, owing to the avocations of agriculture, and to occasional deficiencies of sand, we may safely suppose that the forge is employed 6 months in the year; and then the profits of the proprietor will be about 100 *Fanams*, which is nearly in the same proportion to his stock, as the gains of the breeder of cattle are to his property. At this rate, the quantity smelted in each set of works, taking my estimate of the weight of each piece, will be about 106 hundred-weight; and the 19 forges, stated in the public accompts to be in this district, and that of *Madhu-giri*, will yearly produce about 100 tons of iron, worth nearly 1000*l.*

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Steel.

For making steel, there are in this vicinity five forges; four in this district, and one in *Déva-Ráya-Durga.* To enable the workmen to give them a supply, the merchants frequently make advances; for almost the whole is exported. It is used for making stonecutters-chisels, sword-blades, and the strings of musical instruments. The furnace (see Plate XVI. Fig. 40, 41.) is constructed in a hut (a); and consists of a horizontal ash-pit (b), and a vertical fire-place (c), both sunk below the level of the ground (d). The ash-pit is about $\frac{3}{4}$ of a cubit in width and height, and conducts from the lower part of the fire-place to the outer side of the hut, where it ends in a square pit (e), in which a man can sit, and with a proper instrument draw out the ashes. The fire-place is a circular pit, a cubit in diameter, and descends from the surface of the ground to the bottom of the ash-pit, being in all two cubits deep. Its mouth is a little dilated. Parallel to the ash-pit, and at a little distance from the

CHAPTER VII. August 13. mouth of the fire-place, in order to keep the workman from the sparks and the glare of the fire, is erected a mud wall (f) about five feet high. Through the bottom of this passes an earthen tube (g) which conducts into the fire-place the wind of two bellows (h). The bellows are as usual supported on a bank of earth (i), and consist each of a bullock's hide; they are wrought, as in other places of this country, by the workman passing his arm through a leather ring.

The crucibles are made, in a conical form, of unbaked clay, and each would contain about a pint of water. In each is put one third part of a wedge of iron, with three *Rupees* weight (531 grains) of the stem of the *Tayngada* or *Cassia auriculata*, and two green leaves of the *Huginay*, which is no doubt a *Convolvulus*, or an *Ipomea* with a large smooth leaf; but never having seen the flower, I could not in such a difficult class of plants attempt to ascertain the species. The mouth of the crucible is then covered with a round cap of unbaked clay, and the junction is well luted. The crucibles, thus loaded, are well dried near the fire, and are then fit for the furnace. A row of them (k) is first laid round the sloping mouth of the fire-place; then within these another row is placed (l); and the center of this kind of arch is occupied by a single crucible (m), which makes in all fifteen. That crucible in the outer row (k) which occupies the place opposite to the muzzle of the bellows, is then taken out, and in its stead is placed horizontally an empty crucible (n). This the workman, who manages the fire, can draw out when he pleases, and throw fewel into the fire-place. The fuel used is charcoal prepared from any kind of tree that grows in the country, except the *Ficus Bengalensis*, and the *Chloroxylon Dupada* of my manuscripts. The fire-place being filled with charcoal, and the arch of crucibles being covered with the same fewel, the bellows are plied for four hours; when the operation is completed. A new arch is then constructed, and the work goes on night and day; five sets, of 14 crucibles each, being every day converted into steel. When the crucibles are opened, the steel is found melted into a button,

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with evident marks on its superior surface of a tendency to crystallization; which shows clearly, that it has undergone a complete fusion. It is surrounded by some vitrified matter, proceeding from the impurities of the iron, and probably nearly equal to the quantity of carbon absorbed from the sticks and leaves shut up in the crucible; for the steel in each crucible is by the workmen reckoned to weigh $1\frac{1}{4}$ *Seer*. These buttons, however, are never sold by weight, and those that I tried weighed very little more than one *Seer* of 24 *Rupees*. In some crucibles the fusion is not complete; in which case, the steel is of a very inferior quality, and differs but little from common iron.

The number of people employed at one of these works is thirteen; a head workman, who makes the crucibles, loads them, and builds up the arch; and four reliefs of inferior workmen, each consisting of three persons, one to attend the fire, and two to work the bellows. Each set therefore, in the working season, labours only four hours in the day; except every fourth day, when they must attend double that time. They are all cultivators; and in the leisure time which they have from the furnace, they manage their fields. There is also a proprietor, who advances all the money required, and who receives payment when the steel is sold. Fifteen *Pagodas* worth of iron is purchased; two for the head workman, and one for each labourer, and for the proprietor. This iron is then given to the head workman, who for three months is occupied in making the crucibles, loading them, and preparing the furnace. During this time the twelve workmen bring him clay, repair the buildings, and make charcoal; but these labours occupy only intervals, that could not be employed on their small fields of *Ragy*. In the fourth month, when all has been prepared, they convert the 15 *Pagodas* worth of iron into steel, as above described. Every man then takes the steel which his iron has produced; and the proprietor is repaid for his advances. Another quantity of iron is then purchased, and the same process is repeated; so that by each furnace 45 *Pagodas* worth

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of iron is, in the course of the year, converted into steel. Besides the money advanced for iron, the proprietor, for the immediate subsistence of the workmen, is occasionally under the necessity of advancing them money; and he must also pay the general expenses attending the forge. These are:

	Fanams.
To the keeper of the forest, for leave to make charcoal	110
To the *Sunca*, or collector of the customs - -	30
To the *Gauda*, or chief of the village, for house-rent -	15
To sacrifices - - - - -	30
To bellows - - - -	42
To the *Bráhmans* as charity - - - -	20
Fanams	247

Every man, however, repays his share of this, in proportion to his quantity of steel; and the whole profit of the proprietor is the having three *Pagodas* worth of iron converted into steel, for which he will in general be in advance about 40 *Pagodas*. He therefore requires a capital to that extent; unless he can borrow it from some merchant, which indeed he generally does.

The 45 *Pagodas* procure 1800 wedges of iron, and on an average procure 4500 pieces of good steel; which, at $2\frac{1}{2}$ for the *Fanam*, are equal to - - - - *Fanams* 1800

900 pieces of bad steel, at 6 *Fanams* - -		150
		1950
Deduct general charges - -	*Fanams* 247	
Price of iron - - -	450	
		697
Neat gain -		1253

The neat gain, 1253 *Fanams*, divided by 15, gives $83\frac{1}{4}$ *Fanams* clear profit for each share. The workman's wages are equal to one share, and thus amount to about 7 *Fanams* a month; with double that for the foreman, because he gives up his whole time to the

business. These wages are good; but the allowance for the proprietor is small, unless we consider, that he in general gets the money from the merchant, and that his only claim for reward is some trouble in settling the accompts, and the risk of some of the people running away with the advances made to them. Among the natives themselves, however, very little danger arises from this cause, as they are perfectly acquainted with the characters of the individuals employed. CHAPTER VII. August 13.

Taking the estimate of the natives, of 30 *Rupees* weight being the true average of the pieces of steel, the quantity of stee, fit for exportation, that is annually made in this vicinity, will be about 152 hundred weight, and its value about 300*l.* or 2*l.* a hundred weight.

Having examined the iron and steel works, the *Amildar* and I visited a fine tank, which is said to have been constructed by *Krishna Ráyalu* of *Vijaya-nagara*; and it is the finest work of the kind that I have yet seen above the *Ghats*: unfortunately, it has long been out of repair, and lofty trees now cover all the fields which it watered. It is said, that it would require 10,000 *Pagodas* (about 3354*l.*) to remove all the mud collected in its bottom, and to put it in complete order. A partial repair has just now been given, and it will be able to water some part of its former fields: the remainder will be cleared, and cultivated for *Ragy*, until other more urgent demands shall allow the repair to be completed. Tank.

As we approached *Tavina-Caray*, the country becomes open; and I observed that every field was cultivated. *Tavina-Caray* is a small town; but several additions to it are making. Some streets in the *Petta* are well laid out; and, as an ornament before each shop, a coco-nut palm has been planted. The fortress, or citadel, is as usual almost entirely occupied by *Bráhmans.* This might seem to be an improper place for men dedicated to study and religion; but in cases of invasion their whole property is here secure from marauders; while the *Súdras,* who are admitted during the attack as defenders, Appearance of the country.

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must lose all their effects, except such moveables as in the hurry they can remove.

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14th *August*.—I went to *Tumcuru*, the chief place of a district, called also *Chaluru*. The country is the most level, and the freest from rocks, of any that I have yet seen above the *Ghats*. I observed only one place in which the granite showed itself above the surface. The soil in most places is good, and might be entirely cultivated. Near *Tavina-Caray* it is so; but as I approached *Tumcuru*, I observed more and more waste land. I understand, that the late *Amildar* did not give the people proper encouragement; and about twenty days ago he was removed from his office. By the way I passed nine or ten villages, all fortified with mud walls and strong hedges. At some distance on my left were hills; and the prospect would have been very beautiful, had the country been better wooded; but, except some small palm gardens scattered at great distances, it has very few trees. *Tumcuru* is a town containing five or six hundred houses. The fort is well built, and by the late *Amildar* was put in excellent repair. The *Petta* stands at some distance. The great cultivation here is *Ragy*, but there are also many rice-fields. This year there will be no *Kártika* crop, as at present the tanks contain only eight or ten days water.

Bestas of Karnáta, or Cubbaru.

Here, as in several other parts of the country, there are people of a *Karnáta* tribe of *Bestaru*, who, although they do not intermarry with the *Telinga Bestas*, are so nearly allied, that they will eat together. They never carry the *Palankeen*, their principal occupation being the burning of lime-stone. Some of them are small farmers; but they never hire themselves out as hinds, or *Batigaru*. This tribe are called also *Cubbaru*. They have hereditary chiefs, called *Ijyamánas*, who, with a council of the heads of families, settle disputes, and excommunicate those who, notwithstanding admonition and reprimand, obstinately persist in bad practices. If a woman commit adultery with a strange man, she is excommunicated; but if it be with a *Cubba*, both the adulterer and the husband are fined; the

one as a corrupter, and the other for having been negligent. An assembly of at least ten of the tribe is called, and the woman is asked before the people, whether or not she chooses to return to her husband. If she consents, and he agrees to receive her, as is usually the case, he gives the assembly a dinner, and no one afterwards mentions the affair. If the parties cannot agree, the marriage is dissolved. This cast does not admit the connection called *Cutiga.* The women are extremely industrious, and hence are very valuable to their husbands, and are independent of them for support; which seems to be the reason of their possessing such a licence in their amours. After the age of puberty they continue to be marriageable. Except a few rich men, the *Bestas* of *Karnáta* generally content themselves with one wife, unless the first has no children, or has had only daughters. In such cases, even the poor struggle to procure a second wife, to keep up the family. They are allowed to drink spiritaous liquors and to eat animal food. None of them can either read or write. They bury the dead, and seem to have no knowledge nor belief in a future state; but they appeared very willing to assent to any thing that either I or my interpreter said on the subject. This, however, did not proceed from any conviction of its truth; but merely from civility, they being unwilling to contradict persons who were supposed to be better informed than themselves. They neither make the vow of *Dáséri,* nor believe in the spirits called *Virika.* The goddess of the cast is *Yellama,* one of the *Saktis,* in whose temples the *Pujáris* are persons of this tribe. They offer sacrifices to her, and to all the other destructive spirits; but say that they are of *Vishnu*'s side. They have a *Guru;* yet, although he was here fifteen days ago, they know very little about him. He is a married man, is named *Linguppa,* and was attended by servants of the *Curuba* cast. His disciples here were *Cubbaru, Curubas,* and some other cultivators. He slept in one of the temples of the *Saktis.* All these circumstances would point him out to be a worshipper of *Siva,* and one of the *Curubaru Jangamas;* but he

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wore a thread, and marked his forehead with turmeric, like a worshipper of *Jaina*. He gave the *Cubbas* turmeric to mark their foreheads, and accepted of their *Dharma*, or charity. His *Matam*, or college, is at *Meilar*, near *Savanuru*. The *Panchánga* acts as *Puróhita* at marriages, *Mala-paksha*, and births. For his trouble, he receives rice, or other provisions, but is sometimes paid in lime; money being rather scarce among this tribe.

Additions to the account of the *Curubaru*.

The *Curubas* here say, that, at a temple of *Bhairawa* at *Hervay Samudra*, which is near *Mercasera*, to the north of this place, and where one of their cast acts as *Pújári*, the image represents a man sitting on horseback, with the *Linga* round his neck, and a drawn sword in his hand. They offer sacrifices to this image, and eat the flesh. The family of *Rávana* have now spread all over the country; but *Sarur* is still considered as the proper family seat. Their *Guru* has the power of restoring any outcast to the enjoyment of full communion. They have a book peculiar to the cast, called *Jiraga Chapagodu*. It is written in the language of *Karnáta*, and gives an account of the tribe. The *Curubaru* buy their wives; a girl of a good family costs from 30 to 40 *Fanams;* a girl of the bastard or *Cutiga* breed costs 15 *Fanams*, or 10*s*.

Customs of the *Panchama Cumbharu*.

The *Panchama Cumbharu*, or *Cumbharu* that wear the *Linga*, are an original tribe of *Karnáta*. They say that they are of the *Gunda Brimmia* family, and claim no connection with *Sálivàhanam*, as the other *Cumbharu* do. They follow no other profession than the making of earthen-ware. Their hereditary chiefs are called *Ijyamanas*, and pay annually to government a certain sum for the clay used in their manufacture. The *Ijyamana* divides this assessment upon the families that are under his authority, so that each pays its proportion. They must also furnish with pots all persons travelling on public business. Each house, besides, pays annually three *Fanams*, or 2*s*. The *Ijyamanas* assemble four persons as a council, and with their assistance settle disputes, and punish transgressions. No higher punishment is inflicted on men than a temporary

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excommunication. Women, who commit adultery, are entirely excommunicated, and are never allowed to remain as concubines; and the man who seduces another's wife is obliged to pay a fine to the public. They, and the *Pancham Banijigas,* although they do not intermarry, can eat together; of course, they neither can eat animal food nor drink spirituous liquors. They can marry into any of the forty families descended from *Gunda Brimmia;* but a man and woman of the same family cannot be married together. The men are allowed to take several wives, who are very industrious in bringing clay, and making cups. The girls continue to be marriageable after the age of puberty; but a widow is not allowed to take a second husband. None of them can read. Like all other persons who wear the *Linga,* they bury the dead. The men of this cast have no knowledge of a future state, and neither believe in the *Virika,* nor take *Dásëri.* Their principal object of worship is *Iswara,* represented as usual by the *Linga;* in sickness they pray to the *Saktis,* who are supposed to inflict disorders; and they make vows of presenting their temples with money, fruit, and flowers, provided these vengeful powers will relent, and allow them to recover; but they never appease the wrath of the *Saktis* by bloody sacrifices. Their *Guru* is an hereditary *Jangama,* who resides at *Gubi,* and is called *Sank'-ráya.* He comes once a year, eats in their houses, accepts of their charity, gives them consecrated ashes, and advises them to follow the duties and labours of their cast. If any of them are in distress, he bestows alms on them. The *Panchánga,* or village astrologer, reads *Mantrams* at their marriages, and on the building of a new house, and is thus supposed to render it lucky. The *Jangamas* attend to receive charity at the *Mala-paksha,* or annual commemoration of their deceased parents, at births, and at funerals; but do not either read or pray on these occasions.

Persons who are cultivators, and who wear the *Linga.*

There are many of the *Woculigas,* or *Súdra* cultivators of *Karnáta* extraction, who wear the *Linga.* In this neighbourhood these are of the following tribes: *Cunsa, Gangricara, Sadru,* or *Sadu,* and *Nona.*

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But many of each of these tribes worship *Siva* without wearing his badge; and still more are worshippers of *Vishnu.* All those who wear the *Linga* can eat together, and with the *Pancham Banijigas;* but they only marry in their own tribes.

Customs of the *Nona Wocul.*

The *Nona Woculigaru,* who are here called *Nonabur* by the Mussulmans, consider themselves as *Súdras,* and their hereditary chief is the male representative of a person called *Honapa Gauda.* This chief always lives at *Hosso-hully;* but he sends agents to act for him in different parts of the country. He wears the *Linga,* but many of the tribe worship *Vishnu.* This, however, produces no separation in cast, the woman always following the religion of her husband. My informants are wearers of the *Linga;* and say, that besides the worship of this emblem, they pray and offer fruit and flowers to the *Saktis,* but never sacrifice animals. When any explanation of a future state of rewards and punishments is given by a more learned neighbour, they say that they believe it; but this is done merely out of compliment to his superior endowments; and their worship of the gods seems to be performed entirely with a view of procuring temporal blessings, or of avoiding present evil. They believe that the *Virika,* or spirits of men who have died chaste, can cure diseases. The married *Jangamas* are their *Gurus,* give them the *Linga,* and receive contributions in money or grain. At all ceremonies they attend for charity, but do not pray. It is at marriages only that the *Panchánga* reads his *Mantrams.* Like most other persons who wear the *Linga,* they never take *Dáséri,* and they bury the dead. Some of them can read the *Baswa Purána,* and many of them understand accompts. They are not allowed to eat animal food, nor to drink spirituous liquors. Their chief, or his deputies, with the assistance of a council, settle disputes, and expel from the cast all transgressors of its rules. These, as usual, are, men who eat forbidden meat, and women who are forgetful of their duty to their husbands. This cast does not admit of concubines of the kind called *Cutigas,* nor are widows allowed to marry again. The

girls, however, continue marriageable after the age of puberty, and all the women are industrious in the labours of the field. The men take as many wives as they can procure.

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Gubi.

15th *August*.—I went three cosses to *Gubi;* which, although a small town, containing only 360 houses, is a mart of some importance, and has 154 shops. The houses in their external appearance are very mean, and the place is extremely dirty; but many of the inhabitants are thriving, and the trade is considerable. It is said to have been founded about 400 years ago, by a family of *Polygars*, who resided at *Hosso-hully*, two miles from hence, and who traced their descent from *Honapa Gauda*, the hereditary chief of the *Nona Woculigaru* that I lately mentioned. *Honapa Gauda* lived about 700 years ago, and his family possessed a country which annually produced about 3000 *Pagodas*. They were first brought under subjection by the *Mysore Rájas*, who imposed a tribute of 500 *Pagodas*. *Hyder* increased this to 2500, leaving them little better than renters. They were entirely dispossessed by his son, and have returned to their original profession of cultivators; but in their own tribe they still retain their hereditary rank.

Disturbances about precedence.

From the pride of two contending sects, the *Comaties*, and the *Banijigas*, *Gubi* has lately been in a very disorderly state, and has even been in danger of destruction. The former having erected a temple to a sainted virgin of their tribe, who threw herself into the flames, rather than gratify the lust of a tyrannic *Rája*, the *Banijigas* took offence, pretending that such a temple was contrary to the customs of the town; there never before having been in that place any such building. Both parties being obstinate, the one to retain the temple, and the other to destroy it, *Purnea* last year ordered the town to be divided by a wall; on one side of which the *Comaties* and their adherents should live, and on the other their adversaries. The *Comaties* hitherto had on their side some show of reason, as they did not attempt to force any one to honour their saint; but now they became exorbitant in their pretensions; they would not

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submit to the order of *Purnea;* and said, that the custom of the town was for all parties to live together, the *Bráhmans* excepted, who occupied the fort; and that it would be an infringement of the rules of cast for them to be forced into a separate quarter. The *Banijigas,* to show their moderation, now offered to leave the town altogether, and to build a suburb on the opposite side of the fort, where at present there are no houses. To this also the *Comaties,* on the same grounds, refused their consent. The quarrel has lately been inflamed, by the chief of the *Comaties* having, during a procession, entered the town on horseback with an umbrella carried over his head; which are assumptions of rank, that the *Banijigas* have beheld with the utmost indignation. *Purnea,* I suppose, thinks that they are least in the wrong, and has appointed one of this cast to be *Amildar.* He arrived here yesterday with positive orders to assemble a council of wise men; and, these having determined what the custom originally was, to enforce that with the utmost rigour. The *Amildar* seems to be a prudent man, and not at all heated with the dispute; in which moderation he is not imitated by any one of the inhabitants, except the *Bráhmans,* who look with perfect indifference upon all the disputes of the low casts. How far the plan proposed will be successful, however, it is difficult to say. Both sides are extremely violent and obstinate; for in defence of its conduct neither party has any thing like reason to advance. If justice be done, both sides will complain of partiality, and murmurs are now current about the necessity of killing a jack-ass in the street. This may be considered as a slight matter; but it is not so, for it would be attended by the immediate desolation of the place. There is not a *Hindu* in *Karnáta* that would remain another night in it, unless by compulsion. Even the adversaries of the party who killed the ass would think themselves bound in honour to fly. This singular custom seems to be one of the resources, upon which the natives have fallen to resist arbitrary oppression; and may be had recourse to, whenever the government infringes, or is considered

to have infringed upon the customs of any cast. It is of no avail against any other kind of oppression. CHAPTER VII.

August 15. Commerce at the fair of *Gubi*.

At *Gubi* is one of the greatest weekly fairs in the country, and it is frequented by merchants from great distances. The country, for ten or twelve cosses round, produces for sale coarse cotton cloth both white and coloured, blankets, sackcloth, *betel-nut* of the kind called *wallagram*, or neighbouring, coco-nuts, *jagory*, tamarinds, capsicum, wheat, rice, *ragy*, and other grains, *lac*, steel, and iron. Beside the sale of these articles, and of those imported for the consumption of the neighbourhood, this is also an intermediate mart for the goods passing through the peninsula.

From *Mudo-Biddery*, and *Subhramani*, two places in the country which we call *Canara;* from *Codagu Bogundi*, some place in what we call *Coorg;* and from a place in *Malayála* called *Calesa*, are brought black pepper, cardamoms, *rol*, the gum, and *dupa*, the wood, of the *Chloroxylon Dupada*, Buch: MSS. ginger, *betel-nut* of *Bengal*, cinnamon, *cabob-china*, or cassia-buds; *casturi-china*, or wild turmeric; *capili* flour, and a sweet smelling root called *cachora*. These people take away *jirigay*, one of the carminative seeds, blankets, sack-cloth, cotton cloths of many kinds, but chiefly coarse; sugar-candy, sugar, the pulse called *tovary*, tamarinds, and cash.

From *Tellichery* are brought dates, raisins, nutmegs, saffron, borax, pepper, and *terra japonica*. The returns are the same as those above mentioned.

The merchants of *Gubi* frequent a weekly fair, at a place called *Biruru*, which is east from thence 24 cosses. This is a great resort of the merchants of *Nagara*, and of *Malayala*, who sell to those of *Gubi* black pepper, *Deshavara betel-nut*, *terra japonica*, dates, ginger, *danya*, an umbelliferous seed, garlic, *fenugreek*, wheat, the pulse called *hessaru*, and capsicum. They buy sugar and sugar-candy, *lac*, coarse cotton cloth, sack-cloth, and *bagy*, or *calamus aromaticus*, and receive a large balance in money.

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From *Seringapatam* is brought money to purchase *betel-nut*, sugar-candy, sugar, *jirigay-seed*, *Madras* goods, and blankets.

The merchants of *Bangalore*, *Colar*, and other adjacent places, bring cotton cloths, and a few of silk, and take away *betel-nut* both *Deshavara* and *Wallagram*, black pepper, coco-nuts, cinnamon, ginger, *terra japonica*, *capili* flour, and *carthamus*, or *cossumba*. If the demand be sudden, they bring ready money: but commonly they bring as much cloth, as, when sold, procures their investment backwards; and sometimes even more.

From *Namagundla*, *Gudibunda*, and *Pallia*, which are places near *Bala-pura*, the merchants bring sugar, sugar-candy, and *jagory*. They take back *betel-nut*, coco-nuts, *terra japonica*, and ginger. The exchange is about equal.

From *Pamudi* near *Gutti*, and other places in the country ceded to the *Nizam*, merchants bring a variety of cotton cloths, and take away coco-nuts, and *lac*, with a balance in money.

From *Haveri*, in the *Marattah* country, merchants bring *cossumba*, *terra japonica*, opium, tent-cloth, *mailtuta*, or blue vitriol for colouring the teeth, borax, *sajira*, the seed of an umbelliferous plant, and asafœtida. They take away coco-nuts, *lac*, and money.

Merchants from *Gubi*, and its neighbourhood, go to *Wallaja Petta*, near *Arcot*, with *Deshavara betel-nut*, and black pepper; and bring back cloth, and all kinds of goods imported by sea at *Madras*.

Merchants from *Saliem*, and *Krishna-giri* bring cloths, and take away *betel-nut*, pepper, and money.

Trade is allowed to be flourishing at present. At every fair there are sold from 50 to 100 loads of *betel-nut*, produced in the neighbouring districts of *Sira*, *Hagalawadi*, *Chica-Náyakana-Hully*, *Budihalu*, *Honawully*, and *Gubi*: with about from 20 to 40 loads of *Copra*, or dried coco-nut, from the same districts. Much, however, of these articles, the produce of these districts, is sold at other places. The load is 8 *Maunds*, each of 40 *Sultany Seers*. The average rate of this

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would give 31,000 *Maunds*, or 6698 hundred weight of *betel-nut;* and 12,480 *Maunds*, or 2704 hundred weight of coco-nut, the produce of these districts, sold annually at *Gubi.*

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Manufactures.

The coarse cloths made in the neighbourhood by the *Dévángas, Togotas,* and *Whalliaru*, sell from 2 to 6 *Fanams* for each piece called *Shiray.* About 100 pieces are sold at each fair, worth in the whole year about 20,000 *Fanams*, or nearly 666*l.* In the neighbourhood, however, there are many fairs, where these manufactures are also sold.

Measures, weights, money.

Although this is a very short distance from *Sira*, the *Candaca* of grain contains only 320 *Seers*, and the shells called *Cowries* are not at all current. The *Batta*, or allowance made for exchanging gold to copper, is $\frac{1}{72}$, or not quite $\frac{1}{2}$ per cent. on the regulated price.

Appearance of the country.

The country, between *Tumcuru* and *Gubi*, consists of gently swelling lands, entirely resembling that through which I came yesterday. A very considerable proportion of it is not cultivated. The soil near *Tumcuru* is rather sandy. Near *Gubi* it is in general good, with a large proportion of rice lands. This is now cultivating chiefly for the crop called *Puneji.* The tanks are too small to retain a supply of water for the *Vaisákha* crop. They answer only for cultivation in the rainy season; as they merely preserve a quantity sufficient to supply the fields, when there may be an interval of eight or ten days of dry weather. The rains seem to have been here more copious than towards the north and east; but still the people complain. In no place between this and *Madhu-giri* is water raised by the *Capily*, although no reason is assigned for this neglect, except that it is not the custom.

Muga-Náyakana-Cotay.

16th *August.*—I went three cosses to *Muga-Náyakana-Cotay*, a village in the *Hagalawadi* district. It is strongly fortified with mud walls, and contains 190 houses. Before the last *Marattah* invasion, it had, in the *Petta*, a handsome market, consisting of a wide street, which on each side had a row of coco-nut palms. While *Purseram Bhow* was at *Sira*, he sent 500 horse and 2000 irregular foot, with

CHAPTER VII. August 16. one gun, to take the place, which was defended by 500 peasants from the neighbourhood. They had two small guns, and 100 matchlocks; the remainder were armed with slings and stones. The siege lasted two months, during which the *Marattahs* fired their gun several times, but they never succeeded in hitting the place. On some occasions they had the boldness to venture within musket shot of the walls; but two or three of their men having been killed, they afterwards desisted from such deeds of hardihood, and finally retired without one of the defendants being hurt. The peasants destroyed the market, to prevent the *Marattahs* from availing themselves of the houses in their approach. Nothing can equal the contempt which the inhabitants of *Karnáta* have for the prowess of a *Marattah* army, but the horror which they have at its cruelty. When *Purseram Bhow* left this neighbourhood, his people carried off all the handsome girls that fell into their hands; and they swept the country so clean of provisions, that three fourths of the people perished of hunger.

Appearance of the country. The country through which I have come to-day, is much like that which I saw yesterday. For three years the crop of *Ragy* has almost entirely failed. Last year the rain coming in plenty, after the crop of *Ragy* had been burnt up, they had a good crop of rice. The year before, there being in the reservoir only a small quantity of water, the people had no rice; but applied the water to the cultivation of sugar. Hitherto this year the *Ragy* looks well; but there has been no rain for twenty days. There has been water enough, however, to enable them to sow one fourth of the *Kártika* crop of rice. If in ten days any rain should come, the crop of *Ragy* will be good, and much of it would still endure a drought of three weeks. Notwithstanding this scarcity, the natives are not absolutely in want of provisions; for they bring a supply of grain from other places that have been more favoured.

August 17. 17th *August*.—In the morning I went two and a half cosses to *Conli*. About three miles from my last night's quarters, the country

is hilly; but the hills are lower, and not near so rugged as those to the eastward among the *Durgas.* Owing probably to the vicinity of the iron mines, they are very bare of trees, and their surface is covered with small stones intermixed with bare rock; but this, not being granite, never appears in those immense naked masses so common in the hills running north from *Capala-durga,* or near the eastern *Ghats.* The hills here, as well as the others above the *Ghats,* do not form long uninterrupted ridges, but are almost every where surrounded by level ground; so that in travelling among them, there is little occasion to ascend any great heights. The vallies in some places are narrow, and torn up by the empty channels of torrents; in other places they are wide, and well cultivated. I am informed, that this range of low hills extends all the way north to *Chatrakal,* and in its course comes near to *Sira.* It seems to extend about three miles south from *Conli;* and beyond that I can see quite a level country, extending to a low range of hills at *Miasamudra.* In the vallies here are many palm-gardens. The people complain much of the want of rain; but their crops have not suffered, and I suspect that they exaggerate the dryness of the country. A *Bráhman* here would not allow that he had ever seen a season in which rain had fallen in tolerable plenty.

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Iron mines at *Doray Guda.*

On my way I passed over *Doray Guda,* the hill producing iron-ore; but, not being satisfied with the view which I then took, I determined to stay another day to examine it more fully; and in the mean while I investigated the process that is used for smelting the ore.

Manner of smelting the ore.

At each set of works twenty men are employed. In the smelting-house there are,

1 man to put in the ore and charcoal, and to take out the iron.

3 men to blow the bellows.

6 men to supply the charcoal.

1 man to supply ore. In a forge that is about two miles from the mine, he must keep 5 asses.

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In the forging-house there are,

1 blacksmith to manage the fire and furnace.

2 bellows-men.

3 hammer-men.

3 charcoal-men. No *Bamboos* are to be procured; the charcoal of trees, therefore, must be used; but were the other obtainable, it would be preferred.

The ore is smelted twice a day. At each time, about 166 *Cucha Seers* of cleaned ore are put into the furnace; and the two smeltings, on an average, should produce 65 *Seers* of wrought iron, which is about 20 per cent. of the ore. The two blocks of iron from the smelting-furnace are heated, and then cut into five wedges, each about three *Seers;* and twenty-five, each about two *Seers.* These, having been heated in the forging-furnace (which is open above, and does not seem to give more heat than a good blacksmith's forge), are beaten once by three men, with hammers weighing about 12 or 14 pounds, and are then fit for sale. The iron from the first, therefore, is very malleable, and the fusion is never so complete as to form a button of the metal. The iron, according to the demand, sells at from three to five small pieces, or from 6 to 10 *Seers,* for the *Fanam;* and is bought up by the merchants of *Chin'-ráya-pattana,* and *Narasingha-pura,* who carry most of it to *Seringapatam.* At the first price it brings 20*s.* 8*d.* a hundred weight; at the second price, it brings rather more than 12*s.* 2*d.* It must be observed, that this account entirely contradicts that which was given in the *Chin'-ráyan'-durga* district; the quantity of iron produced from the ore here, being infinitely smaller and higher priced than that produced from the black-sand. The wedges are also smaller, and the workmen are paid by a division; all of which are contrary to the assertions of the people of *Chin'-ráyan'-durga.*

The manner of division is as follows: the master gets the produce of one day's labour, and the workmen get that of three, and divide each day's work thus:

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	Large Pieces.
To the man who furnishes ore, for himself and cattle -	2
To each of the bellows-men at the smelting-furnace 1 large piece - - - - - -	3
Large pieces -	5

	Small Pieces.
To the head-man at the smelting-furnace - -	3
To each of the 9 charcoal makers 1 small piece -	9
To the blacksmith - - - - -	5
To each of the bellows-men at the forge 1 piece -	2
To each of the hammer-men 2 pieces - -	6
Small pieces -	25

The labourers do no other work; and, when the master can make the necessary advances, are employed the whole year. Allowing that they smelt in all 320 days in the year, the lower workmen, at a medium price of 4 pieces of iron for the *Fanam*, make only 5 *Fanams* a month, out of which they must pay ground-rent for their huts. This is low wages. The blacksmith has high wages; but he must find the hammers, anvils, forceps, &c.

The annual expenses of the master are:

	Fanams.
To the renter of mines and woods - - -	130
To ground-rent for the forge - - - -	50
For bellows - - - - - -	180
For an annual sacrifice to *Gudada Umma*, the mother of the hill - - - - - -	10
For two sacrifices to *Hombalu Dévâru*, the god of furnaces	30
To a feast given by the labourers at *Gauri*, in honour of the anvil, 150 coco-nuts, and one *Rupee's* worth of legumes	20
A new cloth to the blacksmith at *Sivarátri* - -	10
Fanams -	430

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As, at the rate of working above stated, 80 days produce of the forge comes to his share, he gets 2600 pieces of iron, which at the average price are worth 450 *Fanams*, leaving only a profit of 20 *Fanams*. From the smallness of this profit, I doubt the accuracy of the account; especially as, by way of a retainer, the master must advance from 50 to 70 *Fanams* to each man, say in all 1200 *Fanams*, and must make them occasional advances of 20 or 30 *Fanams*, to enable them to subsist till they can sell their iron. They are by this means bound to his service; and, without repaying the advance, which very few of them are ever able to do, they can follow no other employment. If he cannot employ them, they may for a subsistence work with the farmers. He is obliged to build their huts, which is done in the intervals of other labour. It is probable, in fact, that all the advances are made by the merchant, in which case his profit is sufficient.

August 18. Mine at *Doray Guda.*

18th *August*.—In the morning I went all over *Doray Guda*, which is about a mile in length, from five to six hundred yards in width, and is divided into three hummocks. The northernmost of these is the most considerable, and rises to the perpendicular height of four or five hundred feet. It is situated in the *Hagalawadi* district; but, for what reason I know not, pays its rent to the *Amildar* of *Chica Nayakana Hully*. This is the only hill in this vicinity that produces the iron ore; but as the same hill in different villages is called by different names, I at one time imagined that the mines had been numerous. The people here were ignorant of there being any other mine in this range of hills; but that I afterwards found to be the case. At *Conli* this hill is called *Doray Guda*, which name I have adopted. On all sides it is surrounded by other low hills; but these produce no iron.

The whole strata of these hills are vertical, and, like all others that I have seen in the country, run nearly north and south. Where they have been exposed to the weather on a level nearly

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with the ground, which is generally the case, these strata divide into plates like schistus, and seem to moulder very quickly. In a few places they rise into rocks above the surface, and then they decay into roundish or angular masses. All that I saw were in a state of great decay, so that it was difficult to ascertain their nature; but, no doubt, they are either earthy quartz, or hornstone variously impregnated with iron, and perhaps sometimes with manganese. Within, the masses are whitish, with a fine grained earthy texture; but outwardly they are covered with a metallic efflorescence, in some places black, in others inclined to blue.

A ledge of this rock passes through the longer diameter of *Doray Guda*, and seems to form the basis of that hill; but the whole superstratum, both of the sides and summit, seems to be composed of a confused mass of ore and clay. The surface only is at present wrought; so that very little knowledge can be obtained of the interior structure of the hill. In its sides the miners make small excavations, like gravel-pits, but seldom go deeper than five or six feet. On the perpendicular surface of these the appearance is very various. In some places the ore is in considerable beds, disposed in thin brittle vertical plates, which are separated by a kind of harsh sand, yellow, bluish, or green. In one place I observed this sand of a pure white, and forming little cakes, readily crumbling between the fingers. In other places the ore is hard, forming irregular concretions, with various admixtures of earth, clay, and ochres. This kind has a tendency to assume regular forms, botroidal, and reniform, which inwardly are striated with rays diverging from a center. Sometimes plates are formed of this kind of ore, which consist internally of parallel *striæ*. Another form of the ore is bluish, and very brittle. The whole is mixed with what the natives call *Cari-cul*, or black-stone, which is brown hæmatites. This is also scattered all over the surface of the ground, and there especially assumes botroidal and reniform shapes. By the natives it is considered as totally useless. In some pits I could observe nothing like

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a regular disposition of the component parts; in others, the various substances are evidently stratified, both in straight and waved dispositions.

The manner of mining the ore is extremely rude and unthrifty. A man with a pick-axe digs on the side of the hill, until he gets a perpendicular face five or six feet wide, and as much high, having before it a level spot that is formed from what he has dug. Before him he has then a face containing ore, more or less intermixed with clay, sand, and hæmatites, and covered with two or three feet of the external soil. He then scoops out the ore, and matters with which it is mixed; and having beaten them well with the pick-axe, and rubbed them with his hands, he picks out the small pieces of ore, and throws away the hæmatites, sand, clay, ochre, and large pieces of ore; assigning as a reason for so doing, that, as he can get plenty of small pieces there is no occasion for him to be at the trouble of breaking the large ones. The crumbling ores are also much neglected, as they are transported with difficulty. When they have dug as far as they choose to venture, which is indeed a very little way, the miners go to another spot, and form a new pit. The ore, broken as I have now mentioned, is carried down on asses backs, and farther cleaned from earth, and broken into very small pieces, before it is put into the furnace. If it is to be carried far, it is generally transported by buffaloes: but this unwieldy animal is incapable of ascending the hill, which in many places is very steep, and the paths are formed on the mouldering materials that have been thrown away by the miners. There is no person who prepares the ore for those who come from a distance: they remain here for sometime with their asses; and, when they have collected a considerable quantity, a number of buffaloes are brought to carry it away. The renter has no occasion to come near the mine. He knows the men that get a supply of ore, and each pays yearly a certain sum, and takes as much ore as he pleases. The renter states the furnaces that are supplied from hence to be six in *Tumcuru*, ten

in *Hagalawadi*, seven in *Chica Nayakana Hully*, and three in *Sira*; but I have access to know that he conceals part of them; yet he is much more correct than the revenue accompts that are kept in *Purnea's* office at *Seringapatam*. CHAPTER VII. August 18.

No tradition remains concerning the time when this mine began to be wrought, for the natives think that ore has been taken from it ever since the creation of the world; or, as they express themselves, since the hill was born; and, as above 100 ass-loads are daily carried from it, I think it probable that the miners have repeatedly gone over the surface. At each time the natives remove only a very small proportion of the iron; and after a certain number of years, new decompositions, and recompositions of the materials seem capable of rendering the surface again fit for their manner of working.

The miners have a tradition, that formerly there had been dug into the southern face of the largest hummock an immense cavern, from whence the whole neighbourhood was supplied with ore. The roof of this is said to have given way, and to have buried the miners of seven villages, with all their cattle. The appearance of the hill confirms the truth of this tradition, there being evident proofs of a part of it having fallen in; and in the perpendicular surface, left by this convulsion, may be seen the mouth of a cavern, probably a part of the old mine. The time when this happened, is likely to have been very remote; as, lower down than this convulsed surface, there is another mine, which the natives believe to be a natural cavern, and into which, not without some reason, they are afraid to enter. Indeed, none of them have attempted it; for they are persuaded that it extends a great way into the earth, which made me curious to examine it.

The miners have evidently wrought into this part of the mine from the westward; and until they came to the ledge of earthy quartz, or hornstone, before mentioned, they have carried on a regular face of considerable width and depth. This ledge cutting

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off the mine, they had by the side of the barren rock made a horizontal cavity into the hill, and thus formed a cavern about fifty feet long, twelve feet high, and nine wide. It is probable, that they had then met with some obstruction; for under this they have formed another mine, which cuts off the communication between the ground and the first mentioned cavern. As there were evident marks of the feet of a large beast of prey at the mouth of the cave, I took the precaution of making a *Seapoy* fire his musket into it; and, nothing but a large flock of bats having appeared, I went in, accompanied by two armed men. We soon came to a place where a bed had been formed in the sand by some of the tiger kind; and having advanced about 100 feet we reached the end of the cave, where another wild beast had formed its bed. This, therefore, was probably the usual haunt of a pair of leopards. We found also a porcupine's quill; but were uncertain, whether the animal had fallen a prey to the leopards; or whether, protected by its prickles, it ventured to shelter itself in their company. The sides of the mine consist partly of the ore, and partly of the rock already mentioned, which is much intermixed with the *Caricul*, or brown hæmatites. The place is perfectly dry. It is probable that the work was deserted when the poor people in the higher mine suffered. Ever since, the miners have contented themselves with working on the surface, and even there are in constant fear. An annual sacrifice is offered to prevent the spirit of the hill from overwhelming the miner. She is called *Canicul Dévâru*, or the goddess of ironstone, and *Gudada Umma*, the mother of the hill; and is represented by the first convenient stone that the workmen find when they come to offer the sacrifice. They also put themselves under the protection of a benevolent male spirit, named *Muti Raya*, or the pearl king. He is worshipped by offerings of flowers and fruits only, and is represented by a shapeless stone, that is hid in the obscurity of a shrine, which is composed of stones and flags, and which in all its dimensions extends about six feet.

CHAPTER VII.

August 19. *Malaiswara Betta.* Minerals.

19th *August.*—In the morning I went two cosses to a village named *Madana Mada,* having been detained on the way by examining the minerals of a hill, which, from a temple situated near it, and dedicated to *Siva,* is named *Malaiswara Betta.* Owing to the vicinity of this temple, a white *Lithomarga* that is found on the hill is considered as holy, and is used in place of the consecrated ashes which the followers of *Siva* employ to make the marks of their religion. The strata are nearly the same as near *Doray Guda,* and consist of a schistose decaying rock disposed vertically. Parallel to this I observed strata of white fat quartz, from one inch to twenty feet in thickness. Near the temple I found the veins or strata of quartz running parallel to each other, and from six to twelve inches distant, and at similar distances sending off transverse bands which united the strata. The interstices of this kind of net-work were filled up with the common stone of the country, not much decayed. It seems to be a hornstone, containing a good deal of iron, and some mica. The surface of this rock had a curious appearance. The ferrugineous brown of the hornstone being checquered with the gray quartz; while this, resisting the weather best, stood up considerably above the surface, and represented in miniature the whin-dykes of the island of Mull, as described in the Philosophical Transactions. In some places I saw the white quartz decaying into sand, and forming masses that on the slightest touch crumbled between the fingers. As I ascended the hill, I met with a curious concretion of brown calcareous tufa. It resembled very exactly a decayed white-ant's *(termes)* nest changed into lime; and amongst its branches were impacted some pieces of decayed hornstone, round which it had evidently been formed. In these hills such concretions, I was afterwards informed, are very common; and some of them are of a pure white, in which case they are burned into lime. But this information I did not receive in time to ascertain the fact. I saw also several detached lumps of brown hæmatites; but on the hill there is no ore of iron, that is by the natives considered as workable.

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The *Lithomarga* is found in large masses heaped together, and incumbent on the rocky strata, with various fragments of which it is intermixed; and it appears to me to have been formed from the hornstone in a particular state of decay. Its surface is generally shining, polished, and conchoidal. The masses, so far as I observed, are not disposed in strata; but, internally, some of the pieces are composed of alternate thin plates of different colours. That used for superstitious purposes is of a pure white colour, and indurated substance; some is red, being coloured by an oxyde of iron; some, as I have observed before, is internally stratified, and consists of alternate layers of the *Lithomarga* and of a yellow ochre; some is black, resembling very dark vegetable mould in an indurated state; some again of the *Lithomarga* is of a pure white colour, and friable nature; and nearly approaching to this is another clay, which is evidently decomposed white mica. Among the *Lithomarga* is found a black friable substance, in its appearance much resembling charcoal; but it is undoubtedly of a fossile nature, and probably is an iron ore. It has a bluish tinge, which it probably derives from manganese.

The temple of *Malaiswara* is a very poor building; but is much frequented at a festival in the month of *Magha*. Some of the figures on the chariot of the image are exceedingly indecent. The woods above the temple are rather taller than usual in these barren hills, and contain many trees of the *Dupada, Chloroxylon Dupada*, Buch: MSS. The resin is used as incense; and musical instruments, somewhat resembling the guitar, are made of the wood. From the top of the hill the view is very fine; the country being composed of hills, cultivated fields, reservoirs like small lakes, and palm gardens, all intermixed. In this hilly country are some considerable flocks of sheep, but no herds of breeding cows.

Madana Mada.

Madana Mada contains 40 or 50 houses, and is placed between two reservoirs; one belonging to itself, and the other to a neighbouring village. So partial are the rains in this country, that the one reservoir is now half full, while the other has not above a

quarter of its water; the two hills, from whence they are supplied, being on opposite sides of a very narrow valley. *Madana Mada* has a very fine palm garden, for the use of which the water of its reservoir is entirely reserved. When that fails, the proprietors have recourse to the machine called *Capily*. Three thousand *Pagodas* have been granted by *Purnea* for enlarging their reservoir; by which means the machinery is expected to become unnecessary, and of course the revenue will be greatly augmented. The gardens here contain 48,000 palm trees.

August 19.

Epilepsy imagined to be owing to a devil.

At night I was awaked by a prodigious noise in the village, which was at some distance from my tents. On inquiry of the sentry, I was told, that there was no one near except himself; every other person having gone into the village as soon as the uproar commenced. I lay for some hours in great uneasiness, supposing that my people had quarrelled with the natives; but, it being a rainy night, I did not venture out, and was unwilling to part with the sentry. Soon after all was quiet, and the people returned. In the morning my interpreter told me with a good deal of exultation, that one of the cattle-drivers had been possessed by a *Pysachi*, or evil spirit, and had been for some time senseless, and foaming at the mouth. On this occasion the whole people, Mussulmans and Pagans, had assembled; and, in hopes of frightening away the devil, had made all the noise that they could: but he had continued obstinately to keep possession, till the arrival of the *Bráhman*, who, having thrown some consecrated ashes on the man, and offered up the prayers proper for the occasion, at length procured a release. The interpreter, I suspect, made the most of his story, in order to remove my infidelity; as the day before I had refused my assent to believe, that certain *Mantrams* pronounced by a *Bráhman* could compel the gods to be present in whatever place he chose. It is almost unnecessary to observe, that the poor cattle-driver was subject to the epilepsy, the recurrence of which this night had, I believe, been occasioned by a violent paroxysm of intoxication, in

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which the whole party had been so deeply engaged, that until morning I could not get a man to tie up the baggage.

August 20. Minerals of *Gajina Guta.*

20th *August.*—In the morning I went to *Chica Nayakana Hully;* and by the way visited a hill called *Gajina Guta,* which produces much *Cavi cullu,* or reddle. This hill is reckoned 1½ coss from *Chica Nayakana Hully.* The part of it which I examined consists of *Caricul,* or brown hæmatites, and clay. In some places the hæmatites forms a kind of rock; in others, it is found only in small lumps immersed in the clay. In this hill it has every where a strong tendency to decomposition, and then in most places forms red ochre, but in some parts it falls into a yellow oxyde. I observed nothing in it like *strata.* Those masses which consist of clay mixed with lumps of the hæmatites, in various stages of decomposition, bear a strong resemblance, except in hardness, to the hornstone porphyry found near *Seringapatam;* for many of the lumps of hæmatites are angular, and have a glassy longitudinal fracture, while their transverse fracture is earthy. Whoever sees these masses, I am persuaded, will be struck with the resemblance, and will believe that from the one kind of mineral the other derives its origin. In all this chain of hills, however, I confess, I saw no porphyry, nor even granite. The reddle is found in large veins, or irregular masses, running through the rock of hæmatites, or masses of clay, in very irregular directions; and seems to be nothing more than the hornstone of the country dissolved into clay, and then strongly impregnated with the red oxyde of iron, from a similar dissolution of the hæmatites. It always contains specks of yellow ochre. People come to dig it from *Hegodu Devana Cotay, Chin'-ráya-pattana, Narasingha-pura, Gubi,* and all the intermediate country toward the south and west, and they send it still farther toward the frontiers. For every ox-load of about 5 *Cucha Maunds,* or about 130 lb. they pay to the renter 12 *Dudus,* or about 6*d.* He says, that about 30 loads only are annually required. He keeps no person on the spot, and is either attempting to deceive me,

or is himself defrauded; for the excavations made to collect it are very considerable. It is used to paint walls, and to dye *Goni*, or sackcloth, and the cloth used by *Sannyásis* and *Jangamas*. The dye comes out with the least water, but the colour is easily restored.

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In the same places are found *Lithomargas* of several colours, which seem to me to be portions of the clay less impregnated with iron than the reddle; and which perhaps derived their origin from hornstone, that contained magnesia, as some are known to do.

In one of the excavations that have been made by digging out the hæmatites, and which forms a cave, I found the nests of a flock of wild pigeons, exactly resembling those of the caves of Europe. This bird therefore, is perhaps one of the most universally diffused kinds in the old world, at least of such as are in a wild state. The common sparrow is equally universal.

Chica Nayakana Hully is a large square town strongly fortified with mud walls, and having *Bruches*, or cavaliers, at the angles. In its center is a square citadel fortified in a similar manner. In the outer town a wide street runs all round, and on both hands sends off short lanes to the outer and inner walls. The houses are at present very mean and ruinous, and do not nearly occupy the whole space within the walls. They are in number about 600, of which 80 are occupied by *Bráhmans*. It contains a garden which belongs to the government, is in great disorder, and is rendered disgusting by two *Banyan-trees (Ficus Bengalensis)* loaded with large bats, whom the people will not disturb. To the south of the town, there was formerly a large suburb; but about forty years ago it was destroyed in an invasion of the *Marattahs*. It was plundered by *Purseram Bhow*, when he was going to join Lord Cornwallis at *Seringapatam*; but at that time he obtained very little, the inhabitants having hidden their most valuable effects, and withdrawn into the hilly country. When the *Marattah* army retired to *Sira*,

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they sent to the inhabitants assurances of protection, and began by making small daily distributions of charity to the *Bráhmans*. By this means they inveigled back a considerable number of the inhabitants; and no sooner had they got the leading men into their power, than they put them to the torture, until the wretched men discovered where their effects were hid, and thus they procured 500,000 *Rupees*. During the remainder of *Tippoo's* reign the place continued languishing, the inhabitants of 300 houses only having ventured back. It possesses a small manufacture of coarse cotton cloth, both white and coloured, and made by *Dévángas* and *Togotaru*. It has also a weekly fair, at which these goods, and the produce of the numerous palm-gardens in the neighbourhood, are sold. Many of its inhabitants act as carriers, transporting goods to different places for the merchants of *Naggara* and *Bangaluru*. Its name signifies the town of the *little chief*; which was the title assumed by the *Polygars* of *Hagalawadi*, its former masters, and who about 300 years ago first fortified it. About a century afterwards they were overcome by the *Polygars* of *Mysore*; and, in order to retain *Hagalawadi* free from tribute, gave up entirely this part of their dominions. *Hyder* made them tributaries even for *Hagalawadi*, and his son stripped them of every thing.

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21st *August*.—I remained at *Chica Nayakana Hully*, investigating the management of the palm-gardens in its vicinity. These occupy by far the greater part of the watered land in the districts called *Honawully*, *Budihalu*, *Hagalawadi*, and *Chica Nayakana Hully*, with a considerable portion in *Sira* and *Gubi*. In the dry season they require the assistance of the *Capily*, the water in the reservoirs seldom lasting throughout the year.

Coco-nut.

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Coco-nut palms are planted in rows round the *Betel-nut* gardens, and also separately in spots that would not answer for the cultivation of this article. The situation for these gardens must be rather low; but it is not necessary that it should be under a

reservoir; any place will answer, in which water can be had by digging to the depth of two men's stature. The soil which is here reckoned most favourable for the coco-nut, is a red clay mixed with sand. It must be free of lime and saline substances. Other soils, however, are employed; but black mould is reckoned very bad. The coco-nuts intended for seed are cut in the second month after the winter solstice. A square pit is then dug, which is sufficiently large to hold them, and is about a cubit in depth. In this, fifteen days after being cut, are placed the seed nuts, with the eyes uppermost, and contiguous to each other; and then earth is thrown in so as just to cover them, upon which is spread a little dung. In this bed, every second day for six months, the seed must be watered with a pot, and then the young palms are fit for being transplanted. Whenever, during the two months following the vernal equinox, an occasional shower gives an opportunity by softening the soil, the garden must be ploughed five times. All the next month it is allowed to rest. In the month following the summer solstice, the ground must again be ploughed twice; and next month, at the distance of 48 cubits in every direction, there must be dug pits a cubit wide, and as much deep. In the bottom of each a little dung is put; and the young plants, having been previously well watered to loosen the soil, are taken up, and one is placed in each pit. The shell still adheres to the young palm, and the pit must be filled with earth, so far as to cover the nut. Over this is put a little dung. For three months the young plants must be watered every other day; afterwards every fourth day until they are four years old, except when there is rain. Afterwards they require no water. Every year the garden is cultivated for *Ragy, Udu, Hessaru*, or whatever other grain the soil is fitted for, and is well dunged; and at the same time four ox-loads of red mud are laid on the garden, for every tree that it contains, while a little fresh earth is gathered up toward the roots of the palms. The crop of grain is but poor, and injures the palms; it is always taken, however; as, in order to keep down the weeds, the ground

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must at any rate be ploughed; as the manure must be given; and as no rent is paid for the grain. On this kind of ground the coco-nut palm begins to bear in twelve or thirteen years, and continues in perfection about 60 years. It dies altogether after bearing for about a hundred years. They are always allowed to die; and when they begin to decay, a young one is planted near the old one, to supply its place. In this country, wine is never extracted from this palm, for that operation destroys the fruit; and these, when ripe, are considered as the valuable part of the produce. A few green nuts are cut in the hot season, on account of the refreshing juice which they then contain, and to make *coir* rope: but this also is thought to injure the crop. The *coir* made from the ripe nuts is very bad, and their husks are commonly burned for fewel. A sufficient quantity of *coir* for country use is made by people of the low cast called *Whalliaru*, who collect the green husks of the nuts, which have been cut for juice, or thrown down by the monkies. In order to rot the substance connecting the fibres, they steep the husks for six months in water; and then having placed them on a stone, they beat them with a stick, and finally rub off with their hands all the adhering substance. The fibrous part, or *coir*, is then fit for being twisted into yarns. The crop begins in the second month after the summer solstice, and continues four months. A bunch is known to be ripe when a nut falls down, and it is then cut. Each palm produces from three to six bunches, which ripen successively. A middling palm produces from 60 to 70 nuts. As the nuts are gathered, they are collected in small huts raised from the ground on posts. When a merchant offers, the rind is removed, at his expense, by a man who fixes an iron rod in the ground, and forces its upper end, which is sharp, through the fibres; by which means the whole husk is speedily removed. He then, by a single blow with a crooked knife, breaks the shell, without hurting the kernel, which is then fit for sale, and is called *Copra*. A man can daily clean 1300 nuts. From 20 to 30 per cent. of them are found rotten. These kernels sell to

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the merchant at from 30 to 40 *Fanams* a thousand. The merchants frequently advance to the whole amount of the expected produce, and sometimes are forced to wait for repayment till a second crop: but the price, they allow, is in general low; and the proprietors of gardens, that are in easy circumstances, prefer taking their chance of the market. CHAPTER VII. August 21.

The old branches and leaves, of which a certain number annually perish, are allowed to drop spontaneously; and are here used chiefly for fewel. They are also used to thatch the huts in the garden; but in this country are seldom, if ever, employed in the houses of the natives. The shells are made into charcoal, which is the only kind that the goldsmiths use.

To stock a garden of 200 trees, requires two men, three oxen, and a buffalo. These do no other work, but are sufficient for the whole cultivation. It must be observed, that if the palms are planted at the distance stated by the cultivators, a garden containing 200 trees would occupy above 23 acres; and the dry crop of grain may be considered as fully equal to the whole expense of cultivation. A garden of good soil pays 70 *Fanams* for the hundred trees; and of a very bad soil, such as that containing lime, the hundred trees pay only 20 *Fanams;* and all intermediate rents are paid according to the value of the soil. At the first rate, the tree pays as rent about $5\frac{1}{4}d.$ and the acre not quite 4*s.* Take the average produce of a middling tree, as the neat produce of a tree on a good soil, and we have 65 nuts, the average price of which, at 35 *Fanams* a thousand, will be $18\frac{1}{4}$ pence; from which deducting the rent, each tree is worth about 13*d.* a year to the proprietor. To judge from appearance, however, I am inclined to think that the trees are in general planted nearer to each other.

The coco-nuts that are planted around *betel-nut* gardens are not so productive, but pay a similar rent; which, however, is always low, in proportion as the soil is bad. They are planted in order to shelter the *betel-nut* palms.

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CHAPTER VII. August 21. *Betel-nut.*

The *Betel-nut* palm, or *Areca,* thrives best in the rich black mould called by the natives *Eray,* or *Krishna Bumi.* The natives here look upon it as a matter of indifference, whether or not, on digging a little depth, water may be found in the soil. All that is required, is to have a proper supply of water either from the reservoir, or by means of machinery.

In the second month after the winter solstice, the nut intended for seed is cut; and, having been put in a heap, is for eight or ten days kept in the house. A seed-bed is then dug to the depth of a foot, and three inches of the mould is removed from the surface, which is then covered with a little dung. On this the nuts are placed with their eyes uppermost, and close to each other. They are then covered with an inch of mould, and for three months are watered every other day. The seedlings are then three or four inches high, and must be transplanted into a fresh bed that is prepared in the same manner; but in this they are placed a cubit distant from each other. Here they grow for three years, receiving water once every other day; and once a month they are cleaned from weeds, and have a little dung.

One year after planting the seed, the ground that is intended for the garden must be dug to the depth of a cubit, and the soil exposed for two months. Young plantain trees *(Musa)* are then placed in it at 16 cubits distance from each other, and it is surrounded by a screen of coco-nut palms, and of *Jack (Artocarpus integrifolia),* lime, and orange trees, which are defended by a hedge of the *Euphorbium Tirucalli,* or milk-bush. At the same time seeds of the *Agashay,* or *Æschynomone grandiflora,* are planted throughout the garden, at the distance of four cubits. When there is no rain, the garden must once in fifteen days be watered by channels made for the purpose. In the second month after the summer solstice of the third year, the young *Arecas* are fit for transplantation. Then throughout the garden, at the distance of 16 cubits, and in the middle between every two plantain trees, are formed pits, a cubit

deep and a cubit wide. In each of these pits a young *Areca* is put, and it must be carefully raised from the seed-bed with much earth adhering to its roots; and, after it is placed, the pit must be filled with earth, and then receive a pot of water. The young *Arecas* are then between two and three feet high, and have four or five branches. If there be water in the reservoir, an irrigation once a month is sufficient; but the *Capily* must be used once in ten days, as the waterings given by it are but scanty. For three years afterwards the whole garden must be completely hoed twice annually. At the one hoeing, for every four *Arecas*, it must have a bullock-load of dung; and at the other hoeing, every tree must be allowed an ox-load of red soil. The mud of reservoirs is here thought to be very bad for a *betel-nut* garden. Ever afterwards the garden is hoed completely once a year only, and is then manured with dung and red earth. At the intermediate period of six months, it is hoed near the trees, and has a little dung. At the end of the first three years, the *Agashay* trees are cut. The plantains are always reserved; but, as the old stems are cut, which is always done in from 12 to 18 months, the young shoots are conducted to a distance from where the parent was originally placed; and when the garden is twenty years old, in these spots are planted other young *Arecas*, to supply the places of the old ones when they decay. This second set are again supplanted by a third, growing where the first set did, and thus a constant succession is preserved. In a new garden, the *Areca* begins to bear fruit in nine years; but fourteen or fifteen years are required to bring forward those which are planted among old trees. They continue to bear for sixty or seventy years; but after having been twenty-five or thirty years in perfection, they begin to decay.

In a few gardens here, the mode of raising *betel-nut* that is in use at *Madhu-giri* has been adopted; and it is said to be preferable, but is attended with much trouble. The plantain tree, however, is always preserved, and is considered as useful to the old palms.

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Yams, or *Dioscoreas*, are considered as prejudicial; but I observed them in several gardens, the proprietors of which said that they allowed them only to climb on the old palms, and to these they did little harm.

There are annually two crops of *betel-nut:* one in the second month after the summer solstice; the other in the two months which precede the shortest day. The last crop is superior both in quantity and quality. The nut, on being cut, is skinned in the course of two days, and put into a large pot with as much water as will cover it two inches. It is then boiled for about three quarters of an hour, until a white scum rises. The largest are then cut into eight pieces, and the smallest into two, with the others in proportion to their size. During the four following days they are spread out in the sun to dry, and every night they are gathered in a heap. When the fruit has been allowed to approach too near to maturity, the nut loses its colour; and a deceit is attempted, by adding a little reddle to the water in which it is boiled. This frequently deceives the consumer, but never the experienced dealer; and seems to be done purposely to enable him to defraud the unwary.

A garden of 1000 trees, allowing eight cubits square for each tree, ought to contain rather more than $3\frac{1}{4}$ acres; but a young garden, containing trees at sixteen cubits, will require $8\frac{1}{2}$ acres. If it receive a sufficient supply of water from a reservoir, it requires the constant attendance of two men and two buffaloes; but if it be watered entirely by the *Capily*, it requires an addition of two men and four oxen. The rent in the first case is 25 *Fanams* for the hundred trees, and in the latter case only 12. The labour of two men and four oxen is therefore estimated at 130 *Fanams* a year, and we may allow 120 for two men and two buffaloes. The great digging of the garden requires additional labourers to the amount of 40 *Fanams*. The nut is prepared by a man who receives two *Dudus* for every *Maund*, or about 6 *Fanams* for the garden. The bunches of nuts are cut by a person of the *Bayda* cast, who

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gets 3 *Fanams* for the thousand bunches, or about 10 *Fanams* for the garden. The whole annual expense therefore of a garden of 1000 trees is about 426 *Fanams.* The produce is reckoned from 40 to 60 *Maunds;* the average is 50, which, for each tree, is exactly the same quantity that was said to be procured at *Madhu-giri.* Nothing is paid to the *Amildar* for the plantains or other fruit; but on this account the custom-house, according to the size of the garden, charges annually from three to five *Fanams.* Where the *Capily* is used, the rent for each tree is rather under a penny. When the reservoir supplies the water, it is rather above two pence. Even in this case, when the trees are at 16 cubits distance, the rent of an acre does not exceed 20*s.*; which is less than rice would give, and not a third part of what is paid for the same quantity of ground at *Madhu-giri.* On the same produce, the rent is rather greater here; so much superior at the former place is the skill of the cultivator. The *Areca* tree is never cut till its leaves have turned brown. Its stem has then acquired great hardness, and in building cottages is very useful.

Monkies and squirrels.

The monkies and squirrels are very destructive, but it is reckoned criminal to kill either of them. They are under the immediate protection of the *Dáséris,* who assemble round any person guilty of this offence, and allow him no rest, until he bestows on the animal a funeral, that will cost from 100 to 200 *Fanams,* according to the number of *Dáséris* that have assembled. The proprietors of the gardens used formerly to hire a particular class of men, who took these animals in nets, and then by stealth conveyed them into the gardens of some distant village; but, as the people there had recourse to the same means, all parties have become tired of this practice. If any person freed the poor people by killing these mischievous vermin, they would think themselves bound in decency to make a clamour; but inwardly they would be very well pleased; and the government might do it, by hiring men whose consciences

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would not suffer by the action, and who might be repaid by a small tax on the proprietors.

August 21. State of the plantations.

The *Marattah* invasion has ruined one half of the gardens; the trees having been cut for the cabbage, which is composed of the young leaves collected, at the summit of the tree, in a large bud. New gardens are now planting without advances from government. Many of the old proprietors, having been reduced to poverty, have sold their right of replanting to others, who were in better circumstances; for all palm-gardens become private property, and may be sold or mortgaged, which, in the *Rája's* dominions, is not the case with any land that is cultivated for grain. The proprietors complain, that for old trees they are obliged to pay the same rent as for young ones. An old garden thus becomes much more valuable to the government, as on the acre there will be more trees that pay rent. If allowed to live to the full age of 80 years, $\frac{11}{16}$ will pay rent; but, if cut at 45 years of age, when they begin to decay, $\frac{3}{5}$ only would pay. The produce of the country however suffers by allowing the trees to live after they begin to decay; and as the profits of the cultivator are at present sufficiently great, they might be allowed to cut the trees whenever they pleased, by fixing on the ground a rent equal to the present: the fixing the rent on the tree, is indeed a bad custom for all parties.

Kitchen gardens.

In the country between *Sira* and *Seringapatam*, there are scarcely any kitchen gardens. The farmers have a few spots, where for family use they raise greens; but I see no gardeners who make this business a profession, except in the island of *Seringapatam*, and in the country to the eastward of the *Durgas*, as it is called, or that which lies to the eastward of the chain of hills which runs north from *Capala-Durga*, and on which there are so many fortified strong-holds.

August 22. *Strata.*

22d *August.*—I went three cosses to *Arulu Gupay*. Except the ridge of hornstone hills on my left, and a short detached ridge on my right, the country was free from hills. The soil was however

by no means so good as that in the level country which lies between the *Durgas* and the ridge of hornstone; for in many places the rock appeared above ground, and lumps of white quartz almost intirely covered many fields. The rock here was gray granite. I believe the hornstone is confined to the ridge in which *Doray Betta* is situated. In the small ridge to my right, the rocks were gray granite; the black-stone already described as accompanying this in the eastern *Ghats;* and the same containing white spots, which probably were quartz. CHAPTER VII. August 22.

At a small village by the way, I was shown a well, from whence what the natives call *Shidy munnu* had been taken. It was in the back yard of a *Bráhman's* house. About two months ago he had dug 20 feet through the common soil of the country, which in many places is very deep. He then came to a stratum of this substance, which he continued to procure until prevented by water. It is a loose scaly earth, of a silvery white colour, and is mixed with small fragments of quartz. It is so friable, that it cannot be handled without falling to pieces, and is no doubt *Schistose Mica* in a state of decay. The micaceous matter is washed off by water, and, in the houses of inferior persons, serves the same purposes that the powdered *mica,* or *abracum,* does in the palaces of the great. They are in fact the same, only the *abracum* is purer. *Shidy munnu* is said to be found in great quantity near *Colar.* *Shidy munnu,* an earth.

Arulu Gupay is a large village in the *Hagalawadi* district. It is fortified with a mud wall and ditch; but its market, which is a street running the whole length of one side of the town, is quite defenceless. It contains about a hundred houses, and a temple of curious workmanship dedicated to *Narasingha.* It is not of great size, but the whole is built of what the natives call *Sila Cullu,* or image-stone, which is indurated pot-stone. This has been cut and carved with great pains and industry, but is totally devoid of elegance or grandeur. The general design is clumsy, and the execution of the figures miserable. It wants even strength, the usual *Arulu Gupay,* and a temple built by *Sholun Ráya.*

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concomitant of clumsiness among the buildings of rude nations; and the walls, although not above fourteen feet high, and built of large stones which have suffered no injury, are yielding to the pressure of the roof, and probably will soon fall. It is said to have been built by one of the *Sholun Rάyas*.

August 23. Appearance of the country.

23d *August*.—In the morning I was detained by a very heavy rain, which has given the people high spirits. In the afternoon I went two cosses to *Turiva-Caray*, the residence of an *Amildar*. The country afforded a melancholy prospect. Like that near *Bangalore*, and the other places toward the eastern *Ghats*, it rises into gentle swells, and occasionally projects a mass of naked granite, or of quartz blackened by iron; but it has once been completely cultivated; and every spot, except those covered by rock, bears marks of the plough. Scattered clumps of trees denote the former situations of numerous villages: all now, however, are nearly deserted. I saw only two houses; and a few fields ploughing for *Horse-gram* seemed to be the commencement of cultivation, from the time the country had been laid desolate by the merciless army of *Purseram Bhow*.

Turiva-Caray.

Turiva-Caray consists of an outer and an inner fort, strongly defended by a ditch and mud wall. It has besides, at a little distance, an open suburb, and contains 700 houses; but is by no means completely rebuilt. It has no merchants of any note; but contains 20 houses of *Dévánga* weavers, and 150 of farmers. It possesses two small temples, similar to that at *Arulu Gupay*; and which, like it, are said to have been built by a *Sholun Raya*, who was contemporary with *Sankara Achárya*, the restorer of the doctrine of the *Vedas*.

Religious buildings.

This prince is very celebrated, by having built temples throughout the country south from the *Krishna* river. All of them that I have seen are small, and entirely built of stone. Their architecture is very different from the great temples, such as that at *Kunji*; the upper parts of which are always formed of bricks, and whose most conspicuous part is the gateway. This last mentioned system of

architecture seems to have been introduced by *Krishna raya*, of *Vijaya-nagara*; at least, the 18 most celebrated temples in the lower *Carnatic* are commonly said, by the *Bráhmans*, to have been rebuilt by that prince: for it must be observed, that scarcely any temple of celebrity is admitted to have been founded in this *Yugam*, or age of the world; and many of them are supposed to be coeval with the universe. The small rude temples so common in the country, and which, from the simplicity of their form, are probably of great antiquity, are all dedicated to *Saktis*, or to spirits worshipped by the low casts, and never to any of the great gods. Many of them, no doubt, are of very late erection; but they seem to me to preserve the simple form of temples erected by rude tribes; and the worship performed in them appears to be that which prevailed throughout *India* before the introduction of the 21 sects which the *Bráhmans* reckon heretical; although some of them were probably antecedent, at least in southern *India*, to the three sects of *Bráhmans* who follow the doctrine of the *Vedas*.

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Buildings by the *Hagalawadi Polygars*.

This place formerly belonged to the *Hagalawadi Polygars*, who, although called *Chica Náyakas*, or little chiefs, seem to have been a powerful family. One of them, who lived about 250 years ago, constructed in this neighbourhood four temples, and four great reservoirs. According to the legend, *Ganésa* supplied him with money for carrying on these. This god appeared to the chief in a dream, informed him that a treasure was hidden under an image which stood in the suburbs, and directed him to take the money and construct these works. The treasure was accordingly found, and applied as directed. The image, from under which the treasure had been taken, was shown to me; and I was surprised at finding it lying at one of the gates quite neglected. On asking the reason, why the people allowed their benefactor to remain in such a plight, they informed me, that, the finger of the image having been broken, the divinity had deserted it; for no mutilated image is considered as habitable by a god. At one of the temples built with this money,

CHAPTER VII. August 23. I saw a very fine black stone, well polished, and cut into a rude imitation of a bull. It was about eight feet long, six high, and four broad; and seemed to be of the same kind with the pillars in *Hyder's* monument at *Seringapatam.* The quarry is six miles distant. The reservoir here is in very fine condition, and was constructed with *Ganesa's* treasure. It formerly watered some excellent *Areca* gardens; but, in consequence of *Purseram Bhow's* invasion, most of the trees perished. For some days his head quarters were at this place. The coco-nut palms, that formerly surrounded the *betel-nut* gardens, still remain, and mark their extent. The *Amildar* says, that he has only one half of the people that would be necessary to cultivate his district, and that most of them are destitute of the necessary stock.

August 24. Strata. 24th *August.*—I was detained all day at *Turiva-Caray* by the violence of the rain. The strata here consist chiefly of gray granite, or gneiss; for the matters composing it are sometimes nearly stratified, the dark green mica, or talc, being in some strata much more predominant than in other. This gives it a veined appearance; but it is perfectly solid, and, except this appearance, has nothing of a slaty texture. Here may be observed beds parallel to the strata of granite, and consisting entirely of this green matter in a state of decay. Its very greasy feel makes me suspect that it is rather talc than mica. Here also, as well as in many parts of the country, the gray granite is intersected in all directions by veins of reddish felspar, intermixed with fragments of white quartz. These veins are frequently a foot wide; and sometimes, in place of being disposed in veins, the felspar runs in beds, or *strata,* which are parallel to those of the granite, and are several feet in width.

August 25. Appearance of the country. 25th *August.*—In the morning I went two cosses to *Cada-hully,* a small village fortified with a mud wall. The country nearly resembles that between *Arulu Gupay* and *Turiva-Caray;* but the soil is more inclined to be stony. It is, however, in a rather better state of cultivation, and perhaps a fourth part of the arable fields is now

occupied. At this village there was a sheep-fold, strongly fortified by a hedge of dry thorns, and containing four huts, which the shepherds usually occupied. These people, alarmed at my appearance, and suspecting that I came to take away their flocks for the use of the army, did not approach the village all night; but preferred exposing their cattle to the danger of tigers. These beasts of prey are said to be numerous here, and at night frequently prowl under the walls; we therefore burned fires round the tents, as was our usual practice in suspicious places. My motive for stopping at this poor place was, to examine the quarry from whence the fine black stone used in *Hyder's* monument was taken. When I assigned this reason to the people, it appeared so absurd to them, that their fears were greatly increased.

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Quarry of black-stone.

This quarry is situated about half a mile east from the village, and rises in a small ridge about half a mile long, a hundred yards wide, and from twenty to fifty feet in perpendicular height. This ridge runs nearly north and south, in the common direction of the strata of the country, and is surrounded on all sides by the common gray granite, which, as usual, is penetrated in all directions by veins of quartz and felspar; but neither of these enter the quarry.

This stone is called *Cariculla*, or black-stone, by the natives, who give the same appellation to the quartz impregnated with iron, and to the brown hæmatites; and in fact they all run very much into one another, and differ chiefly in the various proportions of the same component parts; but have a certain general similitude easily defined, and are found in similar masses and strata. The black-stone of this place is an amorphous hornblend, containing minute, but distinct rhomboidal lamellar concretions of basaltine. I imagine that it is the same stone with that which by the antients was called *Basaltes*, and which was by them sometimes formed into images, as it is now by the idolaters of *India*.

The surface of the ridge is covered with large irregular masses,

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which, where they have been long exposed to the air in the natural process of decay, lose their angles first. When these masses have thus become rounded, they decay in concentric lamellæ; but where the rock itself is exposed to the air, it separates into plates of various thicknesses, nearly vertical, and running north and south. In the sound stone, there is not the smallest appearance of a slaty texture, and it splits with wedges in all directions. The north end of the ridge is the lowest, and has on its surface the largest masses. It is there only that the natives have wrought it; they have always contented themselves with splitting detached blocks, and have never ventured on the solid rock, where much finer pieces might be procured than has ever yet been obtained. The *Baswa*, or bull, at *Turiva-Caray*, is the finest piece that I have seen.

Ballapum, or pot-stone.

Immediately north from the village is a quarry of *Ballapum*, or pot-stone, which is used by the natives for making small vessels; and is so soft, that pencils are formed of it to write upon books, which are made of cloth blackened, and stiffened with gum. Both the books, and the neatness of the writing, are very inferior to the similar ones of the people of *Ava*, who, in fact, are much farther advanced in the arts than the *Hindus* of this country. This pot-stone separates into large amorphous masses, each covered with a crust in a decaying state; and some of them are entirely penetrated with long slender needles of schorlaceous actynolite.

Calcareous tufa.

In the same place I found the calcareous tufa in a solid mass, and procured a specimen distinctly marked with the impression of a leaf.

Quartz.

Immediately parallel, and contiguous to the pot-stone, is a stratum of quartz in a state of decay; which separates into schistose plates, disposed vertically, and running north and south.

Sila Cullu.

At *Haduna Betta*, or Kite-hill, a coss east from *Belluru*, masses of a harder pot-stone, called *Sila Cullu*, may be procured; and from thence probably *Sholun Ráya* conveyed it to build his temples at *Arulu Gupay*, and *Turiva-Caray*.

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August 26. Appearance of the country.

26th *August.*—In the morning I went three cosses to *Belluru.* The greater part of the country consists of barren heights covered with low bushes, and has never been cultivated. More than one half of the arable fields appear to be now waste; but near *Belluru* there is a good deal of fine rice-ground, and more of it is under the *Kártika* crop than I have seen in any other place. The tank of *Belluru* is a fine work, and at present contains water to ripen 40 *Candacas* of seed, sowing at 200 *Seers* a *Candaca.* Another heavy rain will secure them in 30 *Candacas* of the *Vaisákha* crop. Here the sprouted-seed cultivation is preferred to all others. One half of the cattle died last year of the epidemic distemper. There was plenty of forage. The people have not suffered from famine since the invasion of the country by Lord Cornwallis; but on that occasion their misery was terrible. On the approach of the British army, the *Sultan* laid waste the whole country between this and the capital, and forced the inhabitants of the open country to retire to the hills, where they built huts, and procured provisions in the best manner that they could; no steps having been taken by their prince to obviate the famine likely to ensue. They were chiefly supported by the grain of the small villages that are hid among the hills and woods, and which it was not thought necessary to destroy. A large proportion, however, perished of hunger, or of the diseases following too scanty a diet; and in the whole *Nágamangala* country, of which this forms a part, one half of the inhabitants are now wanting, although they have had eight years to recover. This is the calculation of the officers of government. To judge from the desolation that I see around me, I should conclude the loss to have been greater.

Sheep.

In this part of the country a good many sheep are bred: in the morning I met with three large folds of them.

Hills called *Haduna Cullu Betta.*

To the eastward of *Belluru* is a range of barren rocky hills. One of them rises to a considerable height, and is called *Haduna Cullu Betta,* or Kite-rock hill, from its abounding with that kind of bird.

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So far as is known to the natives, these hills produce neither wood nor ore of any use.

August 26. *Belluru.*

Belluru is a large town, and both suburbs and citadel are strongly fortified with a mud-wall, and ditch. The walls of the citadel have been lately repaired; but those of the suburb are in the same ruinous state in which, on the approach of *Purseram Bhow*, they were left by *Tippoo's* troops.

Worship of the village deity by the *Gauda.*

In all this part of the country it has been customary, when a new village was founded, for the person appointed to be hereditary *Gauda*, or chief, to place a large stone in or near the village. This stone is called the *Curuvu Cullu*, or calf-stone, and is considered as representing the *Gráma Dévaru*, or god of the village. The hereditary *Gauda* always officiates as *Pújari*, or priest; and at the annual village feast, after having rubbed it with oil, offers a sacrifice, with which he feasts his relations and the chief men of the place.

Customs of the *Cummay Bráhmans.*

The *Cummays*, or as they are called by the Mussulmans, the *Cummavar*, are a kind of *Bráhmans* different from the others of the country; but I could not learn whence the difference arose. They eat in common with the others, but do not intermarry. They consist of four tribes, which never intermarry, and are called *Canara, Arava-Tocala, Urichy*, and *Boburu Cummays*. The three first tribes are of *Karnáta* descent; the last are of *Telinga* extraction. They are of the same *Gótrams*, or families, with the other *Bráhmans*, and like them are divided into three sects, the *Smartal, Sri Vaishnavam*, and *Madual;* but some of them are of a sect called *Bhágavata.* These, although they follow *Sankara Achárya*, wear the mark of *Vishnu;* and their name implies that they are worshippers of that god. They observe the *Ekadasi* fasts at the same time with the *Tayngala Sri Vaishnavam Bráhmans*, which occasionally differ some hours from those observed by the *Smartal.* These fasts have given still farther room for differences among the *Bráhmans*, the *Vadagalay Sri Vaishnavam*, the *Vaisráya Mata Maduals*, and *Utraya Mata*

Maduals, all differing from each other, and from those before mentioned; and, as might reasonably be expected on such a subject, they dispute about the proper time with great bitterness. The length of time for which the fast should last has given rise to other disputes; some thinking that they ought to abstain from eating 24 hours; others, that the fast should be protracted to two days. In these fasts, all those who aim at being thought good men abstain totally from both food and drink. *Lokika* people, or those who prefer to their duty the gratification of their appetites, satisfy the cravings of their stomachs with fruit. The greater part of the *Vaidika Bráhmans* here, although they employ much of their time in reading the *Vedas*, or eighteen *Puránas*, do not pretend to understand either. They get a copy of some portion of either of these books, and every day employ a certain number of hours in reading it aloud, which they perform with a most disagreeable cant, and twang through the nose. This, however, they consider as sufficiently meritorious to entitle them to the love of god, and the veneration of men; and a large proportion of their countrymen are of the same opinion.

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27th *August*.—I went three cosses to *Nágamangala*. The country through which I came resembles what I saw yesterday; but the greater part of the heights, although barren, appear as if they had been formerly cultivated. At present very little of the country is under cultivation, and it looks very bare. Within sight were many ruinous villages.

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Nágamangala is a large square mud fort, and contains in its center a square citadel, which, like that of *Chica Nayakana Hully*, leaves room in the outer town for one street with short lanes on each side. In the inner fort are two large temples, and some other religious buildings, in good repair; and a *Mahal*, or palace, a *Cutchery*, or public office, and several large granaries, in ruins. The town and all these public buildings were erected by a prince named *Jagadéva Ráya*, who seems to have been of the same family with the *Rájas*

Nágamangala.

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of *Mysore;* for the two houses had frequent intermarriages. According to tradition, *Jagadéva Ráya,* who founded this city, lived about 600 years ago. His dominions extended from *Jagadéva-Pattana* on the east, to the frontiers of the *Manzur-ábád Polygar* and of the *Ikeri Rája* on the west. They were bounded by *Hagala-wadi* on the north, and included the *Belluru* district. On the south they were bounded by the territories of the *Rája* of *Mysore,* and of the *Vir'-Ráya,* who possesses the country that we call *Coorg,* and who was then proprietor of *Mahá-Ráyana-Durga.* About three centuries ago, the successor of *Jagadéva Ráya,* dying without children, was succeeded by his kinsman, the *Curtur* of *Mysore.* This town was originally called *P'hani-pura,* or the city of snakes; but its name has been changed into *Nágamangala,* which signifies the blessed with serpents. Before the invasion of *Purseram Bhow* it contained 1500 houses, which are now reduced to 200, that are scattered amid the ruins. At the same time the *Marattahs* destroyed 150,000 palm trees. In the whole district there are only about one half of the necessary cultivators, and they come in slowly, the *Nizam's* country being at too great a distance. Forty houses only have been built since the place received *Cowl,* or protection from the English. It possesses three fine reservoirs; but for the last four years so little rain has fallen, that very little of the rice-ground has been cultivated, and the proprietors have not been able to replant their palm-gardens.

Fish.

I observed the people fishing in the small quantity of water that is in the reservoirs; and was told, that small fishes are to be found in all the tanks of the country, although they frequently dry up, and have no communication with streams from whence they might get a supply. The eggs, no doubt, remain dry in the mud, and are not hatched until they have been moistened by the return of the water.

Emigration.

The greater part of the inhabitants of *Nágamangala* are what are here called *Tigularu,* or *Taycularu;* that is to say, are descended

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from persons who came from countries where the *Tamul* language is spoken. According to tradition, they left *Kunji* about 700 years ago; but they can give no account as to the occasion of their ancestors deserting their native country. Most of them have lost their original language: but they never intermarry with the native *Karnátas.* Some of them can read the books in the *Tamul* language that belong to their cast.

Manner of renting the lands.

In this district the *Gaudas,* or chief farmers, partly rent the village, and partly collect, on the public account, whatever can be had from the inhabitants. If a renter receives from them a much greater sum than what he agreed to give to the *Amildar,* part is taken from him; but a small or reasonable profit is allowed. In every village a piece of ground is allotted for the *Gauda.* If he rents the village, he pays nothing for this land, and has it free on account of his trouble; but if another person manages the village, the hereditary *Gauda* pays rent like any other farmer. If the crop be very deficient, the renter is not obliged to fulfil his agreement, as he can raise little or nothing from the farmers; but if he can raise 80 or 90 per cent. of his expected collections, he must make up the balance. The farmers have a fixed property in the fields, which are let according to a valuation made by *Jagadéva Ráya;* and so long as a man pays his rent according to that valuation, he cannot be turned out of his possession. The *Sultan* made a new valuation, but never realized it; for the outstanding balances always at least equalled the additional imposts. The rice ground always pays by a division, and the dry-field by a money-rent. Ground that has not been occupied for some time pays no rent for the first year that it is brought into cultivation; a fourth part of the valued rent is laid on every succeeding year; so that on the fourth year it pays a full rent. Almost every where in India somewhat similar prevails; and the custom arises from a conviction that rest injures the soil. In some places it is necessary to cut trees; but that is not the case here.

CHAPTER VII. August 27. Strata.

Immediately west from *Nágamangala* is a hill, which consists chiefly of a talcose argillite, approaching very near to a slaty potstone; the natives indeed call it by the same name; and they use it for pencils as they do the other. Its structure is slaty, and it is disposed in strata much inclined to the horizon, and running north and south. Some of it is reddish, and some has a greenish hue. Intermixed with it are several large masses of white quartz. The rock at the town is granite.

August 28. Appearance of the country.

28th *August*.—In the morning I went three cosses to *Chinna*. The country is more barren than any that I have seen for some time, and the heights rise into low rocky hills. Some parts of it are covered with low trees, especially with the *Elate sylvestris*, or wild-date. *Chinna* is a poor ruinous place. It was formerly of some note; but about 30 years ago it was destroyed by the *Marattah* army, then attacking *Hyder*, and it has never since recovered.

Chinna.

Company's cattle.

I found near this a herd of draught oxen belonging to the Company, and in excellent condition. This seems to be owing to the care which is bestowed, during the rainy season, on collecting hay. By taking the same trouble, the herds of the natives might be kept in a very different state from that in which they now are.

Jaina Banajigas.

Here are a set of people, among whom is the chief of the village, that are called *Jaina Banijigas*. They seem to be different from those called *Jainu*, as they do not wear the *Linga*. There are about forty families of them, scattered through the villages north and east from *Seringapatam*. The *Gauda* relates, that *Ráma Anuja Achárya*, having obtained the victory in a great dispute with the priests of *Jaina* at *Tonuru*, caused these, with as many of their followers as were obstinate, to be ground in oil-mills. The remainder, who had been converted by this powerful mode of argument, received *Chakrántikam* from the *Bráhman*, and their descendants are these *Jaina Banijigas*. They neither eat nor intermarry with *Jainas* who retain their former worship; but adore *Vishnu*, and are disciples of one of the hereditary chiefs of the *Sri Vaishnavam Bráhmans*, who gives

them *Chakrántikam* and holy water, and accepts of their *Dharma*. They are traders, farmers, and cultivators. CHAPTER VII.

29th *August*.—I went one coss to *Mail-cotay*, or the lofty fortress. The country is steep, and nearly uninhabited. There are, however, many places on the ascent that have a good soil, and that have formerly been cultivated. The other lands are covered with copse wood. August 29. Appearance of the country.

Mail-cotay, in the *Sanskrit* language, is called by the uncouth name of *Dakshina Bhadarikásramam*. It is situated on a high rocky hill, and commands a noble view of the valley watered by the *Cáveri*, and of the hills of *Mysore* to the south; of those of the *Ghats* to the west; and toward the east, *Savana-Durga* and *Siva-Gangá* close the prospect. It is one of the most celebrated places of *Hindu* worship, both as having been honoured with the actual presence of an *Avatára*, or incarnation of *Vishnu*, who founded one of the temples; and also as being one of the principal seats of the *Sri Vaishnavam Bráhmans*, and having possessed very large revenues. About forty years ago, it contained almost a thousand houses inhabited by *Bráhmans*, who did not allow many of the *Súdras* to remain in the place. A few shop-keepers and *Satánanas* composed the remainder of the inhabitants. Soon after this period the *Marattahs* gained a victory over *Hyder*, and encamped for some time on the south side of the hill. The *Bráhmans* here were too cunning to be caught, and the place was entirely deserted; but even the temples of their gods did not escape *Marattah* rapacity. For the sake of the iron-work, and to get at it easily, they burned the immense wooden *Raths*, or chariots on which the idols are carried in procession; and the fire spread to the religious buildings, some of which were entirely consumed. A sufficient number, however, still remain. The three principal are, a temple placed on the very summit of the rock, and dedicated to *Narasingha*, one of the *Avatáras* of *Vishnu*; the great temple of *Chillapulla Ráya*; and a noble tank. *Mail-cotay*.

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August 29. Temple of *Chillapulla Ráya.*

The large temple is a square building of great dimensions, and entirely surrounded by a colonnade; but it is a mean piece of architecture, at least outwardly. The columns are very rude, and only about six feet high. Above the entablature, in place of a balustrade, is a clumsy mass of brick and plaster, much higher than the columns, and excavated with numerous niches; in which are huddled together many thousand images composed of the same materials, and most rudely formed. Unwilling to give offence, I did not see any of the interior parts of it, although no remonstrance would have been made against my entering the inner courts; but I wished to get some information from the *Bráhmans;* and my not presuming to approach so holy a place evidently gave satisfaction. The present structure was built, or at least put into its present form, by *Ráma Anuja Achárya;* but, as I have before mentioned, the temple itself is alleged to be of wonderful antiquity, and to have been not only built by a god, but to be dedicated to *Krishna* on the very spot where that *Avatára* performed some of his great works. Although the image represents *Krishna,* it is commonly called *Chillapulla Ráya,* or the darling prince; for *Chillapulla* is a term of endearment, which mothers give to their infants, somewhat like our word darling. The reason of such an uncommon appellation being given to a mighty warrior is said to be as follows: on *Ráma Anuja's* going to *Mail-cotay,* to perform his devotions at that celebrated shrine, he was informed that the place had been attacked by the *Turc* king of *Dehli,* who had carried away the idol. The *Bráhman* immediately set out for that capital; and on his arrival he found that the king had made a present of the image to his daughter; for it is said to be very handsome, and she asked for it as a plaything. All day the princess played with the image; at night the god assumed his own beautiful form, and enjoyed her bed; for *Krishna* is addicted to such kinds of adventures. This had continued for some time when *Ráma Anuja* arrived, and called on the image, repeating at the same time

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some powerful *Mantrams;* on which the idol immediately placed itself on the *Bráhman's* knee. Having clasped it in his arms, he called it his *Chillapulla*, and they were both instantaneously conveyed to *Mail-cotay*. The princess, quite disconsolate for the loss of her image, mounted a horse, and followed as fast as she was able. She no sooner came near the idol than she disappeared, and is supposed to have been taken into its immediate substance; which, in this country, is a common way of the gods disposing of their favourites. A monument was built for the princess; but as she was a *Turc*, it would have been improper to place this building within the walls of the holy place; it has therefore been erected at the foot of the hill, under the most abrupt part of the rock.

Fine tank.

The tank is a very fine one, and is surrounded by many buildings for the accommodation of religious persons, and for the intended recreation of the idols when they are carried in procession. Were these kept in good order, they would have a grand appearance; but the buildings are filthy and ruinous. The natives believe, that every year, at the time of the grand festival, the water of the *Ganges* is conveyed by subterraneous passages, and fills this tank; yet they candidly acknowledge, that not the smallest external mark of any change takes place. On this occasion it is customary to throw in bits of money. My attendant messenger, who is a *Bráhman*, says, that he was present when all the water was taken out by orders from the *Sultan*, who expected by this means to find a great treasure. All that was found, however, was a potful of copper money.

Jewels belonging to the temple.

The jewels belonging to the great temple are very valuable; and even the *Sultan* was afraid to seize them. They are never exposed to the risk of being carried away by any desperate ruffian, but are always kept in the treasury at *Seringapatam;* and during the time of the festival are sent to *Mail-cotay*, under a strong military guard. This property was respected by the British captors, and the jewels are sent to the place as formerly.

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Revenues.

The town has never recovered itself since the first *Marattah* invasion. *Hyder*, indeed, allowed to the *Bráhmans* the full enjoyment of their revenues; but his son first reduced their lands to 6000 *Pagodas* a year; then to four; then to two, and at length to one thousand; finally, he entirely took away their land, and gave them an annual pension of 1000 *Pagodas*. After his fall, General Harris granted them lands to the amount of 6000 *Pagodas;* but at present, from want of cultivators, they produce only 4000, or 1342*l.* 3*s.* 5*d.* These lands are managed by an *Amildar*, appointed by the government, and accountable to it for his conduct. The houses at present amount to 300, of which 200 are inhabited by *Bráhmans*. The only people here who live by industry are twenty families of weavers, and a few shopkeepers. In the great temple four hundred *Bráhmans* form the higher class of the servants; and from thence they receive a daily allowance. There is also a class of servants of a *Súdra* extraction, and consisting of musicians, dancing-girls, and *Vaishnavam*, or *Satánanas*. The houses here are better than any belonging to *Hindus* that I have seen above the *Ghats;* for the begging of the *Bráhmans* is a lucrative employment, and several *Gurus* make this their chief place of residence. The houses are roofed with tiles, and have an odd look, from being entirely covered with thorns. This is done to prevent the monkies from unroofing the houses; for those mischievous animals are here very numerous, and to destroy them is reckoned a grievous sin. The very person who applauds his *Guru* for having ground the *Jainas* in an oil-mill, will shudder with horror at the thought of a monkey's being killed.

Principles of the *Hindus*.

I expected here to be able to get some account of the *Mysore* family, who long had been generous benefactors to the *Bráhmans* of *Mail-cotay;* but in this I was entirely disappointed. I was told, that they gave themselves no concern about worldly affairs; and that to them the history of the low casts was of no consequence. They

seem not at all interested about their young *Rája;* and the family has been so long in obscurity, that it is no longer looked up to with awe; which among the natives in general is the only thing that supplies the place of loyalty. Their military men are the only class that seem to have a strong attachment to their princes; and they serve faithfully, so long as they are regularly paid, or gratified by a permission to plunder; but provided these pay them better, they are equally willing to serve a Mussulman or Christian leader, as a *Hindu* prince. Terror is therefore the leading principle of every *Indian* government; and among the people, in place of loyalty and patriotism, the chief principles are, an abject devotion to their spiritual masters, and an obstinate adherence to custom, chiefly in matters of ceremony and cast.

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Sri Vaishnavam Bráhmans.

30th *August.*—I remained at *Mail-cotay,* endeavouring to get a fuller account of the *Sri Vaishnavam Bráhmans,* or *Aayngar;* but I had not so much success as I expected. I could not procure an interview with any of the *Gurus;* for each of them an excuse was made; some were sick, some were fasting, and most of them were absent on their duty of begging, as it is called. I, however, met with a *Vaidika Bráhman,* who was a very accurate man; and it was not owing to either want of abilities or inclination in him, that I did not procure the information which I wanted. He was of the *Tayngala* sect, and said that the *Wadagalay* separated from them in the time of *Védánta Achárya,* who was born about 30 years after the death of *Ráma Anuja. Tayngala* signifies southern language, while *Wadagalay* signifies that of the north. In the country where the *Tamul* language prevails, the former are most numerous; and the *Wadagalay* are most numerous in *Telingana;* but there are *Bráhmans* of both sects in either country; nor does the difference in opinion prevent them from intermarrying, if they be of the same nation.

Heretical sects.

The books of the *Bráhmans* do not mention the time when the heretical sects arose; they only notice the persons by whom the

CHAPTER VII. August 30. false doctrines were first promulgated. These sects are, or were, eighteen in number; and their authors, according to this *Bráhman*, extracted their doctrine from the six books of the eighteen *Purá-nas* that are reckoned of a bad nature. These sects were very prevalent, and the *Bráhmans* very low, till the time of *Sankara Achárya*, whom even this *Sri Vaishnavam* acknowledges to have been *Iswara* himself, who about 1520 years ago entered a woman of the sacred cast, and was born at *Sringa-giri*, near the western *Ghats*. He had great success against the heretical sects, and entirely destroyed twelve of them; but was contented to permit six of them to exist for some time longer. These six sects were, *Páshandi*, *Charvaca*, *Buddha*, *Jaina*, *Vamana*, and *Pashu* or *Ganapatyam*. The *Pashandi* include all the people who wear the *Linga*; and the *Pundarums*, or all those that worship *Siva*, and pretend to be exempted from the authority of the *Bráhmans*. These are still very numerous, but consider this name as a reproach. The *Charvaca* worship a bull. There are many *Jainas* about *Chin'-ráya-pattana*. A few *Buddhas* remain in the *Codagu* country, which we call *Coorg*. The *Vamanas* are followers of a person of that name, and deny altogether the existence of a deity. The *Ganapatyam* believe in God; but allege, that the *Védas* and *Sástrams*, with all the books esteemed sacred by the *Hindus*, are mere fables. These two last sects are very thinly scattered, and are held in great abhorrence; on which account they do not openly profess their doctrine, but call themselves by some other name. My informant does not know whether any of the other twelve sects now remain and profess their doctrine; but he says, that at any rate by far the greater part were obliged to adopt some of the six doctrines permitted by *Sankara Achárya* to remain, as being true. How this could happen, or how a *Smartal Bráhman* could admit the truth of the doctrines of an atheist or deist, I do not profess to understand. The fact, I suppose, is, that these six sects had influence enough with the governing powers to prevent

the intrigues of *Sankara Achárya* from having effect. It is certain, that long after his time by far the greater part of the people were not followers of his college, or *Mata*. CHAPTER VII. August 30.

About six hundred years after the time of *Sankara Achárya*, the snake *Sésha* entered a woman of the sacred cast at *Sri Permaturu*, and was born as *Ráma Anuja Achárya*. At that time the greater part of the people who lived below the eastern *Ghats* were *Páshandis*; and of those who lived above the *Ghats*, the greater part were *Jainas*: but *Ráma Anuja* not only converted a great many *Bráhmans* from the doctrine of *Sankara Achárya*, but also persuaded many of the heretics to become followers of the *Bráhmans*. Among others was *Vishnu Vardana Ráya*, a *Jaina* prince, and king of the whole country, who resided at *Yadava-puri*; that is to say, the city of the cow-keeper, a place that is now called *Tonuru*. By the assistance of this king, he converted the *Jainas*, and ground their obstinate priests in an oil-mill. As a *Bráhman*, he could not put these people to death; but having publicly convicted them of heresy, it became the king's duty to punish their infidelity. This great leader of the *Bráhmans* made 700 *Matas*, or colleges, for *Sannyásis*; all of which, except four, have gone to ruin. He also appointed 74 hereditary chiefs, of every one of which the representative in the male line continues at present to enjoy his elevated dignity. The *Sannyásis* are considered as of the highest rank; but the hereditary chiefs will not receive from them either *Chakrántikam* or *Upadésa*; for this would be too humiliating an acknowledgment of superiority. Each *Guru*, married or unmarried, has a certain number of families, both *Bráhmans* and *Súdras*, that are hereditarily subjected to the authority of his college, or house. The *Sannyásis* are addressed by the title of *Swámalu*, or *Swámyalu*; the hereditary chiefs by that of *Achárya*. Every *Bráhman* in this country is called *Swámi*, or lord. *Ráma Anuja.*

The appearance of *Ráma Anuja* being one of the most important eras in the history of southern *India*, I was anxious to ascertain the

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exact time of that event. The *Bráhman* who had hitherto given me information was not in possession of the book that contained an account of the life and actions of the founder of his sect, and which, I found, was considered as too sacred for profane eyes to behold. Having sent for the owner of the book, and requested permission for my informant to copy the date, he replied that he would not venture to take such a step without the advice and consent of the leading men in the place. A council was accordingly assembled at my tent, and it was judged allowable to give me the information which I wanted. To avoid delay, and to encourage the man, I offered the owner a small sum of money to pay the writer for copying the date, and of this he readily accepted. At two o'clock the whole party went to consult the book; and at seven in the evening, no one of them having returned, I sent for my first informant. He told me, that, this having been a fast day, none of them, when I saw them, had eaten any thing; and that, immediately on leaving the tent, they had all dispersed, and could not be assembled without an order from the *Parputty*, or civil officer; and that singly no man would do any thing. Application having been made to the *Parputty*, he immediately called an assembly, and they agreed to copy for me a life or journal of the proceedings of *Ráma Anuja*, leaving out only such *Mantrams* and passages as were fit only for the ear of a *Bráhman*. Four or five hours, they said, would be sufficient; and my interpreter was ordered, until the work was finished, to attend his brethren the *Bráhmans* at the temple.

Vairágis.

There is here a *Matam*, or convent of *Vairágis*, who claimed being my countrymen, as I belonged to the Bengal establishment. They said, that their cast was descended from the children of persons of all kinds, who, not having had any heirs, have made a vow to the image of *Ráma* at *Ayódya (Oude)* to consecrate to his service their eldest son, should the god interpose, and grant them a family. Many of these consecrated persons have married, and the whole of

their descendants are *Vairágis*. Their chief convents are at *Ayódya*, and *Jaya-pura*; but smaller ones are scattered in every part of India. Their *Gurus* are also *Vairágis*, but are always descended from the children of *Bráhmans*. They say, that in *Hindustan* proper the only *Pújáris* in the temples of *Vishnu* are the *Bráhmans* of their cast. In that country many of them are learned; but those here acknowledged their ignorance. They abstain from animal food, and hold in abhorrence the custom, which prevails here, of marrying their aunt's daughter. In every part of India a man's marrying his uncle's daughter is looked upon as incestuous. The *Vairágis* of *Súdra* origin always assume the appearance of beggars; but they frequently trade from place to place in horses, arms, pearls, shawls, and other valuable articles; and on such occasions, to secure their property, they travel in large bodies well armed; not trusting entirely to their professions of poverty. They never trade in shops. They are at constant variance with the people of a tribe called here *Gossain* (properly *Góswámi*); and in the engagements that take place between these two sets of vagrants, lives are frequently lost. The forms assumed by the *Vairágis* in begging are various. Some of them constantly remain in some painful or difficult posture; and, according to the postures which they assume, are called *Urdabáhu*, or *Tierawalla*. Some of them, called *Paramahansa*, or *Digambara*, go quite naked, with their hair matted, and thickened with dirt; these beg from door to door, frequently pretending to be idiots, and to live in wastes and woods on leaves and wild fruits. The remainder are called *Rámanandi*. There is in this country a set of scoundrels who call themselves *Vairágis*; but who are disowned by those who pretend to be really so, and are by them called *Bersta*. These fellows extort compassion by burning themselves with torches, and cutting themselves with swords. If possible, they surround a woman who is with child, and threaten to torment themselves before her, unless she gives them money. The woman in general complies, being commonly tender-hearted, and

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CHAPTER VII. also being afraid lest her child should be disfigured by her looking at their distortions and agonies.

August 30. Strata.

The hill on which *Mail-cotay* stands consists of many different kinds of rock; but to most of them, the French term *Roche feuilletée* seems applicable. They are all aggregates, with their component parts disposed in a striated or foliated manner. They are of very great tenacity, being extremely difficult to break, especially across the fibre; they split somewhat more easily in its direction, but even in that strongly resist all external violence. These rocks are disposed in vertical strata running north and south, and the fibres or laminæ are placed in the same direction. In small pieces this structure is often not easily discernible; but it is always very conspicuous in large masses, or when the rock begins to decay. The *strata* are intercepted by fissures crossing them at right angles; but never, so far as I observed, containing any extraneous fossil, such as quartz or felspar. In decay, this rock has a tendency to form long cylindrical masses, which from their fibrous nature have somewhat the appearance of petrified logs of timber. The most common of these strata are various kinds of gneiss, which may be cut here into pillars of any size, and afford admirable materials for fine buildings. Some of it is very small grained, and assumes the form which by some mineralogists is called regenerated granite. In some of the buildings here are columns of this kind, which are of an excellent quality, and cut remarkably well. The people could not tell from whence they had been brought. Many other *strata* consist of a granitel, composed of hornblend-slate, quite black, and mixed with white quartz. When broken longitudinally, the quartz forms veins; when transversely, it forms spots. It might perhaps be called a hornblend porphyry. Here are also *strata* of schistose *Mica;* one of which is decayed into a kind of earth called *Nama*, and is a source of some profit to the place. It is supposed to have been created by *Garuda*, or the mythological eagle on which *Krishna* rides; and near this is used by all the *Sri Vaishnavam*

Brahmans, and their followers, to mark their foreheads. Some of it is, for this purpose, sent even to *Kási*, or *Benares*. Some *Vaishnavams* work it by digging the whole substance out of the beds in which it lies, and throwing it into large vessels of water. It is well stirred about; and, while the *mica* swims, the fragments of quartz remain at the bottom, and are taken out by the hand. The *mica* is then allowed to subside, and forms into a mass, which is divided into small pieces, and afterwards made into balls by being moistened in water. These are sold for use, and are perfectly white.

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August 31. Difficulties of the *Bráhmans* in communicating information.

31st *August*.—In the morning my interpreter informed me, that last night, until a late hour, he had attended the council of *Bráhmans* at the temple. After a long deliberation, it was determined that they would give him a verse, or *Slókam* containing the era that I wanted to know, enigmatically expressed, as is usual in these verses. They also explained the enigma to him in the vulgar language, and gave him a copy of this, which he might show; but they enjoined him by no means to expose to profane eyes the *Slókam*, a request that he treated with great contempt. It was also determined, that they would neither copy any part of the book, nor permit it to be seen, under pretence of its having been carried away by the *Marattahs*. What could induce them to adopt such an excuse, I cannot tell. Before a hundred people at my tent, and these the chief inhabitants of the place, a man venerated for his years, his learning, and his piety, declared himself possessed of the book, and received money to defray the expense of copying a part of it; and now he was not ashamed to declare, that thirty years ago he had been robbed of it. To do him justice, he offered to refund the money; but my interpreter refused it, having no orders to rescind the bargain. It had, indeed, been by his advice that I had made the advance. He alleged, that in his cast no promises of reward are looked upon as good for any thing; but that the immediate view of

CHAPTER VII. the money produces strong effects; and, after receiving the money, the faithful performance of what a *Bráhman* undertakes may very generally be expected.

August 31. Appearance of the country.

I then went to *Tonuru-Caray*, by the Mussulmans called *Muti Talau*, or the pearl-tank, a name given to it by one of the *Mogul* officers who visited the place. From *Mail-cotay* it is distant three cosses. The intermediate country is very rough, containing only a narrow fertile band on the sides of a water-course, which, after heavy rain, conveys some water from *Mail-cotay* into the reservoir of *Tonuru*. This band is at present cultivated only in part, all the dry fields being entirely unoccupied. Although these are almost a continued bed of loose nodules of white quartz, they have formerly been cultivated; and to make room for the plough, the stones have in many places been gathered up into ridges. At present, the country is quite bare; but the remaining stumps show, that the whole way between the two places an avenue of trees formerly sheltered the road.

History of *Ráma Anuja*.

At *Tonuru* I found some intelligent *Bráhmans*, who told me that the translation of the verses given me at *Mail-cotay* was a false one; and that the real meaning of them is, that *Ráma Anuja Achárya* was born in the year of the *Kali-yugam* 4118, or the year 1025 of the Christian era. These *Bráhmans* repeated another *Slókam*, which makes the birth of *Ráma Anuja* to have happened in the year of *Sáliváhanam* 932, or A. D. 1010, a difference only of 15 years.

The account of *Ráma Anuja*, given here, is as follows. *Yadavi Puri*, now called *Tonuru*, was formerly a place of great note, and the residence of a powerful king named *Belalla Ráya*. Nine princes of the same name had preceded him, and his empire extended to a great distance. Like his ancestors, he was a worshipper of *Jaina*; and it is said, that in his capital city seven hundred temples were dedicated to that god. At this time *Ráma Anuja*, having taught new opinions in the country below the *Ghats*, was persecuted by *Shola Rája*, or

the king of *Tanjore*, who was a strenuous supporter of the *Smartal Bráhmans*. *Ráma Anuja* was obliged to retreat from this persecution, and come to the court of *Belalla Ráya*. The daughter of this prince was then possessed by *Brimma Racshasu*, a female devil, who rendered the princess so foolish, that she was unable even to dress herself. The king had carried his daughter to all the temples of his idol; and all his priests, who were generally admitted to be very skilful magicians, had attempted to free the princess from the monster; but all these efforts were vain. *Ráma Anuja* having obtained permission to try his power, he presented the princess with some consecrated *ocymum (Tulsi)*, and sprinkled her with holy water; on which she was immediately restored to her understanding. The king then declared, that he would follow *Ráma Anuja* as his *Guru*, and worship *Vishnu*; whereupon the *Bráhman* gave him the name of *Vishnu Vardana Ráya*, and bestowed on him *Chakrántikam* and *Upadésa*.

The priests of *Jaina*, as may be naturally supposed, were enraged with the *Bráhman* for having converted their king; and a grand dispute took place before the whole court. After eighteen days of disputation, the *Jainas* were fully confuted: some of them took *Chakrántikam*, some made their escape, and the remainder were put to the terrible death which I formerly mentioned. The king then presented a large sum of money to his new *Guru*. With this that *Bráhman* pulled down all the temples of the *Jainas*, and with the materials built the great reservoir. He also repaired three temples of *Vishnu* that had long been quite deserted, and in one of them he resided three years. He then had a dream, in which *Náráyana* ordered him to go to *Mail-cotay*, and to repair the temple of *Rámapriya*. This is the original name of the idol now called *Chillapulla Ráya;* and I have already related the fable concerning the origin of that name; which was told here also, with very little variation. On his return from *Dehli* with the image, *Ráma Anuja* repaired the temple, and

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promulgated the laws that are now observed by the *A'ayngar Bráhmans.* He resided there fourteen years; when, the *Shola Rája* that had persecuted him having died, he went to *Sri Rangam,* near *Tritchenopoly,* and there also had very great success against the infidels, converting them by means similar to those which were used at *Tonuru.*

Tonuru, or Yadava-Puri.

The only remains of the ancient city are some ruins of the walls, which are sufficient to show that they were of great extent. The three temples said to have been repaired by *Ráma Anuja* are in good preservation, and must either have been founded by him, or entirely rebuilt; which last is the most probable opinion. Before that time, they were perhaps small buildings belonging to a persecuted or newly established sect. Their present size is very considerable. The *Sultán* had converted one of them into a fort, and made it the residence of an *Asoph,* or lord lieutenant; but it has now been purified, and I found that an infidel could not be admitted within the gate. At no place in the peninsula have I found that a European could get admission into the shrine, or chamber in which the idol is placed. In most cases, indeed, the door will be opened; but as there is no light in any of these places, except that of a glimmering lamp, I have never been able to discern the form of any of the idols that are worshipped by the *Bráhmans:* they are said, however, to be of the same form with the images without, thousands of which are placed about the temples as ornaments, and which any one may see, handle, or purchase. These are not at all objects of adoration; the divinity not having been placed in them by the powerful *Mantrams* of a *Bráhman.*

Great tank.

The reservoir, or *Yadavi Nuddi,* is a very great work. Two mountain torrents here had united their streams, and forced a way through a gap between two rocky hills. *Ráma Anuja* stopped up this gap by a mound, said to be 78 cubits high, 150 cubits long, and at the base 250 cubits thick. The superfluous water is let off

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by a channel, which has been cut with great labour through one of the hills, at such a height, as to enable it to water a great deal of the subjacent plain, which is three or four miles in extent. When the reservoir is full, it contains a sufficient quantity of water to supply the cultivators for two years; but owing to failures of rain, the water frequently continues lower than the opening of the outlet. Although the torrents bring down much sand, it so happens that the reservoir is never affected by that circumstance; for the two streams enter in such directions, as to force all the sand toward the extreme corners, without diminishing the main depth. A few years ago the *Sultan* destroyed this favourite monument of the great *Hindu* doctor, which had been built with the spoils of refuted heretics, and was hence doubly valued by every true follower of the *Puránas*. *Tippoo* cut a narrow trench through the mound; and the water, having got vent, rushed forth with such violence as to sweep away two thirds of the whole. Although the demolition of this work by *Tippoo* was but a just retaliation for the enormities by which it had been erected, nothing could be more absurd or impolitic, both as giving offence to his subjects, and as injuring the resources of the country. The motive that induced him to act so foolishly is doubtful. Some say, that he expected by draining the reservoir to find a great treasure, and that he thought he should be able to effect this without the demolition of the work, which, contrary to his wishes, was swept away by the violence of the torrent undermining the foundations. Others attribute the action to a sudden ebullition of bigotry, which was his ruling passion. Near the place there is a monument dedicated to one of the fanatical followers of *Mahmud Ghizni*, who had penetrated this length, and had here suffered martyrdom. Very early a monument had been erected over his grave, and the *Sultan* had buried one of the ladies of his family by the side of the stair which leads up to the tomb of the reputed saint. When he destroyed the reservoir, he had been on a

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visit to this sacred place; and his zeal against the infidels had been inflamed into rage by the recollection of the martyrdom: the monument of the Mussulman was enlarged, and endowed with the spoils which the *Bráhmans* had torn from the priests of *Jaina*. The former establishment in the mausoleum of this fanatic is supported at the Company's expense; and a robust intelligent saint *(Peer)* receives annually 200 *Pagodas*, and performs the proper ceremonies. From the *Mysore* government the temples annually receive 300 *Pagodas*.

Amildar of *Mail-cotay.*

The town is increasing fast, and will, no doubt, be soon a considerable place; for orders were given by General Harris for the immediate rebuilding of the tank, and the *Amildar* has already made great progress in the work. This *Bráhman*, whom *Hyder*, in one of his invasions of the dominions of *Arcot*, carried away from *Kunji*, has been appointed *Amildar* of the lands which were restored to the *Bráhmans* of *Mail-cotay*. When informed of their conduct, he was greatly enraged, and sent immediately for the leaders of the council. He did this, partly to inform them of the necessity there was for performing their engagements with me; and partly, by the journey, to punish their folly. He told them, that as the English gentlemen had always protected the *Bráhmans*, there could be no reason for concealing their books, of which no one would attempt to deprive them. He then told me, that under the former government these poor people had got into such habits of lying, as a kind of skreen from oppression, that they were now utterly incapable of speaking the truth. The *Bráhmans* of *Tonuru* are very communicative, which the *Amildar* attributed to their poverty.

Strata.

The *strata* here are similar to those at *Mail-cotay;* but are so intersected by fissures, as to be of no use for building.

On the rising ground north from the reservoir a severe battle was fought between the *Marattahs* and *Hyder*. The latter was completely defeated, and all his army destroyed, except one corps, with

which he fled into *Seringapatam*, passing by the western end of the hills. CHAPTER VII.

Sept. 1. Quarry of granite.

1st *September*.—I went three cosses to the northern bank of the *Cavery*, at *Seringapatam*. By the way, I examined the quarry of gray granite at *Chica Mally Betta*, which is the best in the neighbourhood. It is about six miles north from *Seringapatam*. The workmen have never cut upon the solid rock, but have contented themselves with splitting the lower blocks that cover the surface of the hill, and a stone 12 cubits long is reckoned a very large one. Longer ones, if wanted, might no doubt be obtained by cutting into the solid rock. This granite, in its appearance, has nothing either of a fibrous or foliated texture; but in fact its parts are so disposed, that the stone splits much easier in one direction than in any other. The workmen cannot judge of this by external appearance; but they try the block by chipping it in various parts, until they find out the direction in which the wedge will have its most powerful effects. In decay, the plates of which the rock consists are abundantly conspicuous. This stone is easier wrought than that of *Mail-cotay;* but, owing to the coarseness of its grain, cannot be cut into such fine figures.

Appearance of the country.

Chica Mally Betta and the French rocks, as we call them, are two small rocky hills, which rise up in the middle of the country between *Tonuru* and the *Cavery*. In no other place, except the *Kari-ghat* hill, is the surface too steep for the plough. All the low ground has formerly been cultivated, though in many places the declivity of the fields is great. North from the canals a very small portion of the arable land is at present in cultivation; and even under the canals there is waste land, although these noble works are now full of water, and send forth copious streams to all the fields between them and the river. Owing to the steepness of the ground, many of the rice plots are not above six feet square; and the ingenuity and labour with which they have been formed almost equal those of the *Chinese* terraces.

CHAPTER VII.

Sept. 1—4.

River *Cavery*.

1st—4th *September* 1800.—I remained at *Seringapatam* repairing my equipage, and making ready for the journey. The *Cavery* is now full, and contains a large rapid stream; but its water is by no means clear, and is reckoned unwholesome. The town is so low, that at this season many of the houses are damp and unhealthy; and the air of the eastern end of the island is still more prejudicial to the human constitution.

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JOURNEY THROUGH THE PART OF KARNATA SOUTH FROM THE CAVERY.

ON the 5th of *September*, I went one coss to *Pal-hully*. Owing to some mistake, my baggage missed the way; and, after having wandered the whole day, arrived in the evening with the cattle so fatigued, that on the day following it was impossible to move. CHAPTER VIII. Sept. 5.

6th *September*.—*Pal-hully* formerly contained a thousand houses; but during the siege of *Seringapatam*, as it was in the immediate rear of the camp of General Harris, it was entirely destroyed. A hundred houses have been rebuilt, and the inhabitants are daily returning. It is situated on the bank of the lower of the two canals that are forced by dams from the *Cavery* to water the district called *Mahásura Ashta-grám*. This canal now contains a fine stream, like a small river. It never becomes entirely dry, and enables the farmer, even in the dry season, to have a crop of rice on part of his fields. Here were formerly many palm-gardens; but the army, in order to procure fire-wood, and materials for the trenches, destroyed the whole. They have now been planted again. In this district a good deal of sugar-cane is raised; and some persons have lately come here to make sugar. Formerly all the juice was made into *Jagory*. The present stock is sufficient to cultivate the greater part of the watered-land, but more than half of the dry field is waste. Sept. 6. *Pal-hully*. Canals for irrigation. State of the *Mahásura Ashta-grám* district.

Although the river abounds with fish, very few are caught by the natives; for that kind of food is not a favourite one with the people of *Mysore*. Fish.

About the villages swine are now beginning to accumulate, as a Swine.

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great proportion of the farmers eat pork. Under the *Sultan's* government it was necessary to conceal these impure animals.

Sept. 7. *Strata.*

7th *September*.—I went three cosses to *Gungural-Chatur*, which is situated in the *Mahásura Nagara Taluc*, or district of the city of *Mysore*, and distant three cosses from that place. The country is uneven, but contains no hills. Its strata consist of gneiss, schistose hornblende, and schistose mica, and run nearly north and south.

State of the district of *Mahásura Nagara.*

Much of the surface, especially toward the west, is broken, stony, and barren; but a great proportion has been formerly cultivated. This, however, is by no means the case at present; for I have seen no part of the country that has suffered more by the operations of war. It has never, indeed, recovered since it was ravaged by a *Marattah*, whose forces the terror of the natives has augmented to a hundred thousand cavalry. This part of the country contains scarcely any reservoirs or rice-ground, and is very bare, having few or no trees. At all the villages in this neighbourhood there have been palm-gardens, which were watered by the hand, for machinery has never been employed here. All the villages between *Gungural-Chatur* and *Seringapatam* are open; but the former, although it has always been a sorry place, is fortified.

Sept. 8. *Sicany-pura*, or *Hussein-poor.*

8th *September*.—I went three *Sultany* cosses to *Muluro*. At the distance of one coss from *Gungural-Chatur* I came to *Sicany-pura*, which by the Mussulmans was called *Husseinpoor*. It had been given in *Jaghir* to *Meer Saduc*, the favourite minister of *Tippoo Sultan;* and, although an open town, it has been a neat place with wide streets, which crossed each other at right angles. More than half of the houses are now in ruins. On the approach of one of our foraging parties, it was entirely destroyed by *Purnea* and *Cummur ud' Deen Khan*, and a few only of the houses have been rebuilt.

Lakshmana tirta river, and its canals.

At a short distance west from *Sicany-pura* is a fine little river called the *Lakshmana tirta*, which comes from the south-west, and rises among the hills of the country which we call *Coorg*. At all times

it contains a stream of water, and in the rainy season is not fordable. It supplies six canals to water the country. The *Anas*, or dams, that force the water into these canals, are fine works, and produce beautiful cascades. One of them is broken down, but the other five are in good repair; and, in fact, one of them that I saw supplied more water than was wanted; for a quantity sufficient to turn a mill was allowed to run back into the river through a sluice. Owing to a want of cultivators, a great deal of rice-ground is waste. It is said, that the whole land formerly watered by the canals of the *Lakshmana* amounted to 7000 *Candacas* sowing; but the *Candacas* are small, and contain only from 100 to 140 *Seers* each. If the seed be sown here as thick as at *Seringapatam*, the 7000 *Candacas* would amount to about 18,000 acres. CHAPTER VIII. Sept. 8.

State of the country, of cultivation, and of stock.

The country on this day's route is no where steep, and rises into gentle acclivities; but near the road the soil is in general poor and hard, and from thence very little cultivation is visible. This part of the country is at present covered with low trees. The pasture is better than common, owing probably to a greater quantity of rain. On either hand, I am informed by the officers of government, the soil is much better, and about one half of the arable land is in cultivation. I am persuaded, however, that this is not the case, and that almost the whole of the country has been at one time ploughed. The custom here is to separate the fields either by hedges, or by leaving between them uncultivated spaces from four to ten feet wide, which are covered with *Mimosas*, or other trees; which adds greatly to the beauty of the country, and, by preserving the moisture, probably contributes to the fertility of the land. I think that I can every where observe traces either of the hedges, or of these woody spaces, except in a few spots covered with the *Elate sylvestris*, or wild date, and of these the soil is said to be saline. Perhaps, however, the devastation may have been committed before the memory of the present generation, and before the formation of the present village accompts, and one half of the

CHAPTER VIII. Sept. 8.

whole lands entered in them as arable may be cultivated. The greater part of the cultivators perished during the invasion by Lord Cornwallis, chiefly owing to the ravages committed by a party of *Marattahs*, and to the consequent famine. None died last year owing to the war, although many lost their effects; and at present the inhabitants amount to about one half of the number that were living in the early part of *Tippoo's* reign. Last year, three fourths of the cattle perished by the epidemic distemper.

Condition of the Mussulmans, and their attachment to the late *Sultan*.

The Mussulmans who were in *Tippoo's* service are daily coming to this part of the country. Those who have any means carry on a small trade in grain; those who are poor hire themselves to the farmers, either as servants or day-labourers. Being unacquainted with agriculture, they are only hired when others cannot be procured. Their wages are, of course, low, and their monthly allowance is thirty *Seers* of grain (worth three *Fanams*) and one *Fanam* in cash; all together about 2*s.* 8*d.* They, however, prefer this to enlisting in the service of the Company along with the infidels who killed the royal martyr.

Anacuts on the *Cavery* and *Lakshmana*.

Muluro is an open village which contains about forty houses, and is pleasantly situated about two cosses south from the *Cavery*. On this river there are here *Anacuts*, or dams, watering as much land as those of the districts called *Ashta-gráms* do. The dams on the *Lakshmana* are said to be of greater antiquity than those which *Chica Deva Ráya*, the *Curtur* of *Mysore*, constructed on the *Cavery;* but the memory of the person's name by whom they were erected has perished.

Tenures.

In this part of the country there are no hereditary *Gaudas*, or chiefs of villages, whose duties are performed by renters. Some of these really rent their villages, and agree to pay annually a certain sum. Others receive wages, and account for what they collect. Neither can legally take from the cultivators more than the custom of the village permits. This custom was established by one of the *Mysore Rájas*.

In *Hyder's* government two *Bráhmans,* with the title of *Hircaras,* resided in each district *(Taluc).* Their duty was, to hear all complaints, and to report these to the office of the revenue department. They were also bound to report all waste lands. This was found to be a considerable check to oppression, and to defalcations on the revenue; but, no doubt, was inferior to the visits of the Resident and *Dewan,* who in this part of their duty are indefatigable. Such visits were however impracticable to princes like *Hyder* or the *Sultan.*

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Sept. 8. *Hircaras,* or inspectors employed by *Hyder* to prevent abuses.

Tippoo disused these *Hircaras;* and this measure of economy contributed much to the oppression of the people, and to the diminution of the revenue. It is not supposed that, during the latter part of his government, more than a fourth part of the nominal revenue entered the treasury; the country having been depopulated by various means, and every rascal through whose hands any of the public money passed having taken a share; for to such delinquents the *Sultan* was remarkably lenient, an error of government which flatterers call liberality.

Defect in the *Sultan's* government.

Water for drinking is here very scarce and very bad, yet the people have never attempted to dig wells.

Scarcity of water.

9th *September.*—I went to *Emmaguma Cotagala.* The country is nearly of a similar appearance to that which I saw yesterday, and has been equally desolated. In one place there is a small rocky hill; but every other part, near the road, seems capable of cultivation. As we approach the western *Ghats,* the vegetation becomes evidently stronger, and the fields have somewhat of a summer verdure. A large proportion of them have even the soil entirely hidden by grass. I am told, that this season the rains have been much less copious than usual, but yet the crops look well. The quantity of grain called *Car-ragy* gradually increases as we advance to the westward: about *Seringapatam,* and in the country toward the eastern *Ghats,* no such crop is known. Here the capsicum

Sept. 9. Appearance of the country.

CHAPTER VIII.

ripens with the natural moisture of the climate; there it requires to be watered.

Sept. 9. *Cuttay Malalawadi* town and district.

About midway is *Cuttay Malalawadi*, a large mud fort, and the chief town *(Kasba)* of a district *(Taluc)*. About thirty years ago it was fully inhabited, and had a large suburb *(Petta)*; while the cultivation all around was complete. At that period a *Marattah* army, commanded by *Badji Row*, laid every thing waste, and most of the inhabitants perished of hunger. So complete was the destruction, that even the excellent government of *Hyder* did not restore to the district more than one half of its former cultivation. The town never regained its inhabitants, and was occupied by forty or fifty houses of *Bráhmans*, who lived scattered amid the ruins. The suburb, however, was completely rebuilt. In the invasion of Lord Cornwallis every thing was again ruined; nor could any place recover under the subsequent government of *Tippoo*. At the commencement of the late war, the population amounted to about a fourth of the former inhabitants, and few or none have since perished; but they lost much of their property, the town having been burned and the fort dismantled by the orders of *Tippoo*, as he retired after the unsuccessful attack which he made on the Bombay army at *Seduseer (Siddhéswara)*.

Cotagala.

Cotagala, although it gives its name to a district, is an open village containing about twenty houses, and situated about a mile from another called *Emmaguma;* whence the names of the two are commonly mentioned together.

Scarcity of water.

The water for drinking is here also very bad and scarce. The wells have not been dug to a greater depth than twelve feet.

Sept. 10. Appearance of the country, and climate.

10th *September*.—I went three cosses to *Priya-pattana*, which in our maps is called *Periapatam*. The country strongly resembles that which I have seen on the two preceding days; but is still less cultivated. Some parts near *Cotagala* are rather hilly, and there are no remains to show that these have ever been cultivated. The

trees there are high, and extend even to the summits of the hills; which I have not observed to be the case any where to the eastward. Near *Priya-pattana* are many small pools, that contain water all the year, although they never overflow so as to give origin to rivers. They are surrounded by meadows; but, on account of their diminutive size, cannot be called lakes. Near the villages on this day's route there are many palm-gardens in a very neglected state. The tanks also are ruinous, although many in number; for even here the rain is not sufficient to bring a crop of rice to maturity. I am told, that in the *Coduga*, or *Coorg* country, the rains are fully sufficient for this purpose; accordingly, great quantities of rice are raised there, and much of it is exported, partly towards *Chatrakal*, and partly towards *Seringapatam*. Every day, on an average, seventy oxen loaded with this grain pass *Cotagala*.

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Coduga, or *Coorg*, very productive of rice.

Priya-pattana, or the chosen city, formerly belonged to a *Polygar* family named *Nandi Ráj*. These princes were related to the *Vir' Rájas*, or *Rájas* of *Coduga*, and both families wore the *Linga*. The territories of *Nandi Ráj* included the two districts of *Priya-pattana* and *Bettada-pura*, producing an annual revenue of 30,000 *Pagodas* (9361 *l.* 3 *s.* 8¼ *d.*), and extending about twenty-four miles east from the frontier of *Coduga*, and about thirty miles south from the *Cavery*, which bounded them on the north. At that time the fort was a small square, defended only by a mud wall. It contained the *Mahal*, or palace of the *Rája*; and three temples, one of *Siva*, one of *Jaina*, and one of *Veidéswara*, who is one of the destructive spirits. This last was the largest. In the centre of the palace the *Rája* had built a hall, which is now unroofed; but many ornaments, of neatly carved *teak-wood*, still remain. As usual in *Hindu* houses, this *Mahal* was a square surrounded by a corridore; but the central area was covered with a dome, which is not common. Under the dome was suspended a swing, for the amusement of the *Rája*, and of his women; for the natives of India are very fond of

Polygars of *Priya-pattana*.

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this exercise, which is well fitted for vacant minds. Two years after having finished this building, and about 160 years ago, this *Rája* was attacked by *Chica Deva Ráya*, the *Curtur* of *Mysore*; and finding himself unable to resist so powerful an enemy, he killed his wives and children, and then died sword in hand in the midst of his enemies. With this, it would appear, the prosperity of the country ceased; as it was ever afterwards a subject of dispute between the princes of *Mysore* and the *Vir' Rájas*, or *Coorg Rájas*. *Chica Deva*, however, enlarged the place, and surrounded the mud fort by one built of stone, and placed at some distance without the old works. In this outer fort he settled a colony of *Bráhmans*, and built a temple dedicated to *Vishnu*.

War between *Tippoo* and the *Vir' Ráya*.

On *Tippoo's* accession, in order, I suppose, to distress the inhabitants of *Coorg*, and thus to make their prince, the *Vir' Ráya*, submit to his authority, he interdicted all communication with that country; and ordered, that all such of its inhabitants as might be found in his dominions should be instantly put to death. This restraint was severely felt by the people of *Coorg*, who, being entirely surrounded by the dominions of the *Sultan*, had no means of selling their produce, nor of procuring foreign commodities. The *Vir' Ráya* sent an embassy to the *Sultan*, and represented that it had always been customary for his merchants to trade with those of *Mysore* and *Malayála*, and that he was forced by necessity to require that this custom should not be abolished. He received no answer, but a contemptuous defiance; and immediately commenced a predatory warfare, at which his subjects are very expert, and which they had been accustomed to carry on even to the gates of *Mysore*, before the dread of *Hyder's* vigorous government had repressed their insolence. In one of these incursions, seventeen years ago, the *Vir Ráya* fell into the hands of *Tippoo*, by whom he was confined four years in *Priya-pattana*, with a yearly allowance of 300 *Pagodas* for a subsistence. The walls of the hovel in which he was confined

are still shown to strangers. One of his sisters was forced into the *Zenana* of *Tippoo*, and to her intercessions the *Ráya* probably owed his life. CHAPTER VIII. Sept. 10.

Conquest and loss of *Coorg* by the *Sultan*.

The *Coorg* country, deprived of its active gallant prince, fell under the yoke of *Tippoo*, who built in it a fortress called *Jaffer-ábád*, and placed there a strong garrison. After the *Vir' Ráya* had been four years confined, he was set at liberty by twelve *Gaudas*, or chiefs of villages, who entered the town in a concealed manner, and carried their master into his own dominions, where he was instantly joined by all ranks of people; and *Tippoo's* possessions in that country were soon after confined within the walls of *Jaffer-ábád*. The *Rája's* troops were quite unfit for besieging the place; but he succeeded in cutting off all supplies, and was not only able to prevent any of *Tippoo's* forces from entering his country, but was also able to plunder the dominions of *Mysore;* to which in a great measure is owing the deplorable state of the neighbouring districts. After a long blockade, the *Sultan*, with much difficulty, conveyed an order to the garrison permitting them to withdraw; which they attempted to do, but on the route they were cut to pieces. Previous to this the *Raja* had made repeated demands of assistance from the Bombay government, requesting a few regular troops to enable him to destroy the enemy's fortress; and as General Abercromby's army ascended the *Ghats* about the time when *Jaffer-ábád* was evacuated, the *Raja* received them with every mark of kindness and attention. At the same time, he took an opportunity of plundering in the most cruel manner the enemy's country in their rear.

Destruction of *Priya-pattana*.

On the approach of General Abercromby's army to *Priya-pattana* the fort contained 500 houses of *Brahmans*, and the suburb or *Petta*, which is at some distance, contained 1000 houses, mostly inhabited by merchants of the sects that wear the *Linga*. *Tippoo* ordered the houses in both fort and suburb to be destroyed, and sprung some mines to render the fort useless to his enemy. The

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Bráhmans were dispersed through the country; but many of their beautiful girls became a prey to the lust of the *Coorg* soldiery, and were carried into captivity. The merchants voluntarily followed a prince of their own religion, who has built a large town for their reception, and for that of the people whom in his predatory excursions he had swept from *Mysore.* During the ten days that General Abercromby waited at *Priya-pattana,* the gunpowder of his army was kept in the temple of *Jaina.* On his retreat it was left behind; but *Tippoo,* instead of applying it to the purposes of war, caused the whole to be blown up, and thus had an opportunity of destroying an idolatrous temple, which was one of his favourite amusements. In the interval between the peace granted to *Tippoo* by Lord Cornwallis, and the advance of the Bombay army under General Stuart, a small proportion of the inhabitants had returned to both the fort and suburb; and, in order to overawe the *Vir' Ráya,* a strong garrison was kept in the former; but after the affair at *Siddhéswara* every thing was again destroyed by *Tippoo.* The *Vir' Ráya* did not fail again to plunder the country; and while he carried away a great number of the inhabitants, he got a large booty in sandal-wood. The neighbouring country does not now contain more than one fourth of the inhabitants that would be necessary to cultivate it; and the people have not yet recovered sufficient confidence to venture large flocks of cattle on their fine pastures. Such a temptation, they think, could not be resisted by the people of *Coorg;* and the territories of a notorious thief, the *Cotay hutty Nair (Raja of Cotioté),* are at no great distance.

Present state of *Priya-pattana.*

The fortifications at *Priya-pattana* are quite ruinous, the late *Sultan* having blown up the best works. In the inner fort there are no inhabitants, and tigers have taken entire possession of its ruins. A horse that strayed in a few nights ago was destroyed; and even at mid-day it is considered as dangerous for a solitary person to enter. It was deemed imprudent for me, who was followed by a multitude, to enter into any of the temples, which serve the tigers

as shelter from the heat of the day, by which these animals are much oppressed. The outer fort contains a few houses of *Brahmans*, who are forced to shut themselves up at sun-set; but who prefer this restraint to living in the suburb among the vulgar. The *Petta* is recovering faster; but ruins occupy by far the greater space; and the scanty population is only able to form pathways through the rank vegetation that occupies the streets.

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Environs of *Priya-pattana.*

The environs of *Priya-pattana,* although rich and beautiful, are not at this season pleasant to a person living in tents; for the moisture of the climate, the softness of the soil, and the rankness of the vegetation, render every thing damp and disagreeable. Toward the east, the uncultivated grounds are half covered with dry thin bushes, especially the *Cassia auriculata,* and *Dodonea viscosa;* but here they are thickly clothed with herbage; and near the villages, where the ground is manured by the soil of the inhabitants, and of their cattle, the whole is covered with rank weeds, especially the *Ocymum molle,* Willd.? the *Datura metel,* the *Amaranthus spinosus,* the *Mirabilis jalappa,* and the *Tagetes erecta;* which last, although originally a native of *Peru,* is now naturalized every where, from *Hémada-giri* to *Raméswara.*

Oriental exaggeration.

The officers of government here had the impudence to inform me, that, according to *Chica Deva Ráya's* valuation of the country which belonged to *Nandi Ráj,* it contained 32,000 villages, or *Gráms.* Of these the *Priya-pattana* district ought to contain one half; but 2532 have been utterly deserted, and their sites are now covered with woods. The remaining ones are valued at 14,000 *Pagodas* a year; but now produce one half only of that sum. The country appears to be by nature excellently fitted for supporting a numerous population; but the account given here seems to be one of those gross exaggerations common in India, and is entirely contradicted by the accounts which I received from the revenue office at *Seringapatam.*

CHAPTER VIII.

Sept. 11—13. Alarm of the inhabitants at my enquiries.

11th, 12th, and 13th *September*.—I remained at *Priya-pattana*, investigating the state of the neighbouring country; in which I had great difficulty from the fears of the people, which were greater there, than in any place in which I had then been. The whole of what I wrote on the first day I was obliged to destroy, and was forced again to go over the same subjects, the first account having been evidently incorrect.

Irrigation, and watered lands.

Near *Priya-pattana*, the wet lands are entirely irrigated from reservoirs; but in the southern parts of the district canals from the *Lakshmana tirta* afford much water to the farmers. There are none on the *Cavery* so far to the westward. Two crops are never taken from the same ground in the course of the year, and the only crops raised on watered-land are rice and sugar-cane. The rains in general set in early, and are copious; but they do not continue long enough to bring a crop of rice to maturity; for all the kinds that are cultivated in the rainy season require six months to grow. Small reservoirs, sufficient to contain six or eight weeks water, are therefore necessary; and the common crop, called here the *Hainu* crop, grows in the rainy season. When the rains fail in the early part of the year, a *Caru* crop can be taken, if the reservoirs are good; but, except those of *Priya-pattana*, few such are in the country.

Cultivation of rice.

In the annexed table will be seen many of the particulars relative to the cultivation of rice.

Table explaining the cultivation of rice at *Priya-pattana.*

Kinds of Rice cultivated.	Months each requires to ripen.	Season	Seed.		Produce					
					In a good crop.			In a poor crop.		
			Seers for a *Candaca-land.*	Bushels for an Acre.	Increase, or folds.	*Seers* on a *Candaca-land.*	Bushels for an Acre.	Folds.	*Seers* on a *Candaca-land.*	Bushels on an Acre.
				Decimals.			Decimals.			Decimals.
Anaputti - -	6	*Hainu*	140	1,253685	30	4200	37,610833	16	2240	20,06
Caimbuti - -	6	ditto	147	1,316336	$23\frac{41}{49}$	3500	31,342142	$14\frac{14}{49}$	2100	18,804347
Conawaly - -	6	ditto	154	1,379062	$18\frac{14}{77}$	2800	25,073888	$13\frac{49}{77}$	2100	18,804347
Sanabutta -	6	ditto	119	1,06565	$21\frac{21}{119}$	2520	22,566315			
Sana Caimbuti	6	ditto	119	1,06565	$21\frac{21}{119}$	2520	22,566315			
Caru - - -	5	*Caru*	- -	- - -	- - -	2800	25,073888			

I shall now enter into a fuller detail. The only cultivation of any consequence that is used here is the transplanted, or *Nati;* yet the natives allow, that if they used the *Mola,* or sprouted-seed cultivation, the quantity of seed required would be much smaller, and the produce somewhat greater. In their defence, for not adopting a manner of cultivation so superior to that now in use, the farmers allege, that it requires more labour, and that there is at present a deficiency of stock.

By far the greatest quantity of rice cultivated here is the *Hainu* crop of *Anaputti;* on which accordingly *Chica Deva Ráya* formed his *Shist,* or valuation. I measured what was said to be a *Candaca* land, as rated in the accompts of the district, and found it to contain $3\frac{875}{1000}$ acres; on which my calculations in the foregoing table are founded.

Hainu crop of transplanted rice seedlings.

The following is the manner of cultivating the *Hainu Nati,* or crop of transplanted rice growing in the rainy season. The ground, on which the seedlings are to be raised, gets seven or eight ploughings between the middle of *Vaisákha* and the tenth of *Jyaishtha,* which are the second and third months after the vernal equinox. In the intervals between the ploughings, the field is inundated;

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Sept. 11—13.

Leaves used for manure.

but at each time that operation is performed, the water is let off. After the last ploughing, manure with the leaves of the *Chandra maligy (Mirabilis)*, or *Womuttay (Datura metel)*; but, if these cannot be had, with the leaves of the *Chaudingy (Solanum,* not yet described, but which nearly resembles the *Verbascifolium*). Then tread the leaves into the mud, sow the seed very thick, and cover it with dung. The seed is in general prepared for sowing, by causing it to sprout; and the reason assigned for so doing is, that it is thereby secured from the birds. This precaution is however sometimes neglected. If the seed has been prepared, or *Mola,* the field has water during the third, sixth, and ninth days, the water being allowed to remain on the field all day, and being again let off at night. On the tenth day the field is filled with water an inch deep, and is kept so till the eighteenth, when that water is let off. Immediately afterwards the field is filled to three inches deep, and is kept thus inundated until the seedlings be fit for transplantation. If the seed be sown dry, it receives water on the first, second, and third days. On the fourth it has the manure which is given to the *Mola,* when that is sown. It receives water again on the seventh, which is let off on the ninth. Water is again given on the thirteenth, seventeenth, and twenty-first; and the field is then inundated, until the seedlings are fit for transplantation. They must be transplanted between the thirtieth and forty-sixth days.

Management of the rice-field.

The ploughings for the fields into which the seedlings are to be transplanted are performed during the time in which these are growing; and are done exactly in the same manner as for the field in which the seed has been sown. Stiff ground requires eight ploughings; in a light soil six are sufficient. The manure is given before the last ploughing. The seedlings are pulled in the evening, and kept in water all night. Next morning the field has the last ploughing, and the mud is smoothed by having a plank drawn over it. The seedlings are then planted, and get no water until the eighth day. On the eighth, twelfth, sixteenth, and twentieth days

the water is kept on the field, and is let off at night. The yellow colour occasioned by the transplantation is then changed into a deep green; after which, until the crop ripens, the field is constantly inundated. In a bad soil, the weeds are removed on the thirtieth day; in a good soil, on the forty-fifth.

Caru crop of rice.

The *Caru* crop, or that raised in the dry season, being taken in bad years only, which do not often happen, the farmers are obliged to procure seed from places where the *Caru* rice is regularly cultivated. They are supplied from *Saligráma*, near the *Cavery;* a place which is esteemed holy, as *Ráma Anuja* threw into a tank there his *Saligráma* and copper pot. The place is also celebrated on account of its fine rice-grounds, which are supplied with water from the river. The ploughing season for the ground in which the seed is to be sown is the second month after the autumnal equinox. The manner of cultivating the *Caru* crop differs only in the season from that which is used for the *Hainu.*

Saligráma.

Manner of making *Mola*, or sprouted-seed.

The farmers here make their sprouted-seed in the following manner. The seed is soaked all night in water, and is then placed in a heap on a piece of sackcloth, or on some leaves of the *plantain-tree (Musa)*. There it is mixed with some buffalo's dung, and the leaves of the *Buricay* (or *Ocymum molle* Willd.?), and covered with pack-saddles. In the evening it is sprinkled with warm water, and covered again. In the morning and evening of the second day it is sprinkled with cold water, and next day it is fit for sowing.

Sugar-cane.

Although the produce is great, the farmers of *Priya-pattana* never raise sugar-cane unless they receive advances. *Jagory* sells here at 1 *Rupee*, or $3\frac{1}{4}$ *Fanams* a *Maund*, or at about 9*s.* $4\frac{1}{2}$*d.* a hundred-weight. The cane is watered from reservoirs; the natural moisture of the climate not being sufficient to raise it, and machinery being never employed. The kinds cultivated are *Restalli* and *Maracabo*, both of which grow nearly to the same length, which is in general about six feet. The *Restalli* ripens in twelve months; while eighteen are required to bring forward the *Maracabo;* so that, as a crop of

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rice must always intervene between two crops of sugar-cane, the rotation of the former occupies two years; while in that of the *Maracabo* three are consumed. A little *Puttaputti* has been lately introduced.

Cultivation of *Maracabo* sugar-cane.

For the *Maracabo* plough twenty times, either in *Aswaja* and *Kartika*, the two months immediately following the autumnal equinox; or in *Kartika* and *Margasirsha*, which is of course one month later. The canes are planted in the second or third months after the winter solstice. In order to plant the cane, longitudinal and transverse furrows are drawn throughout the field, distant from each other one cubit and a half; at every intersection a hole is made, nine inches wide, and of the same depth; in each hole are laid horizontally two cuttings of cane, each containing three joints; finally under them is put a little dung, and above them an inch of mould. Then water each hole with a pot, from a channel running at the upper end of the field. On the two following days this must be repeated. Until the end of the third month, water every other day. From the third to the sixth month, the field must, once in eight days, be ploughed between the rows of holes; and at the same time, should there be any want of the usual rain, it must be watered. At the first ploughing a little dung must be given, and at the end of six months the field must be copiously manured. At this time channels are formed winding through among the canes; so that every row is between two channels. When the rainy season is over, these channels must be filled with water, once in eight days in hot weather, and once a month when it is cool. At the beginning of the eighth month the whole field is hoed, and at the end of two months more this is repeated. The cane here is never tied up. A *Candaca-land* is estimated to contain 7000 holes; but in this there must be some mistake; for allowing $1\frac{1}{2}$ cubit for each hole, 7000 would not plant an acre; whereas the *Candaca* of land that I measured contained $3\frac{226}{1000}$ acres. The produce of a *Candaca* of land is stated to be about 14,000 *Seers*, each of 24 *Rupees* weight; which,

according to my measurement, would be about 19½ hundred-weight of *Jagory* per acre: but, if 7000 holes at the distance from each other of 1½ cubit produced this quantity, it would be at the rate of above 93 hundred-weight for the acre, which is much more than can be allowed.

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Sugar-mill.

The sugar-mill used here is the same with that which the farmers of *Chenapatam* employ. In the course of twenty-four hours it gives as much juice as produces three boilings, each of about a hundred-weight of *Jagory*.

I. 341 / II. 457

Labour performed by one plough.

A farmer, if he has four ploughs, and four constant labourers, can cultivate a *Candaca-land* alternately with sugar-cane and with rice; but at weedings, and such other occasions, he must hire additional workmen. He will, however, cultivate thirty-five *Seers* sowing of *Ragy*.

Pyr-aurumba, or dry-crops.

The *Pyr-aurumba*, or dry-crops, at *Priya-pattana* are, *Ragy* with its concomitants *Avaray, Tovary, Navony, Harulu, Tadaguny,* and mustard, *Huruli, Udu, Car' Ellu, Mar' Ellu,* wheat, *Carlay,* and *Shamay*.

Kinds of *Car' Ragy*, or *Cynosurus corocanus*.

I. 408. / 144

The only *Ragy* cultivated here is called *Caru;* which does not differ in species, botanically speaking, from the *Gyd' Ragy* cultivated to the eastward; but the seed of the *Gyd' Ragy*, cultivated as the *Caru* kind is, will not thrive. There are three kinds of *Car' Ragy:* the *Balaga*, or straight spiked *Ragy*, which is always sown separately from the others; the *Bily Modgala*, or white *Ragy* with incurved spikes, and the *Cari Modgala*, or incurved black *Ragy:* the two latter are sometimes kept separate, and sometimes sown intermixed. The cultivation for all the three is quite the same, and the value of the different kinds is equal; but the produce of the *Cari Modgala* is rather the greatest.

Soils fitted for *Car' Ragy*.

A rich black soil is here esteemed the best for *Ragy;* next to that the red soil usually preferred to the eastward; but it is sown also on sandy land, and grows there very well, if it have plenty of manure.

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Cultivation of *Maracabo* sugar-cane.

For the *Maracabo* plough twenty times, either in *Aswaja* and *Kartika*, the two months immediately following the autumnal equinox; or in *Kartika* and *Margasirsha*, which is of course one month later. The canes are planted in the second or third months after the winter solstice. In order to plant the cane, longitudinal and transverse furrows are drawn throughout the field, distant from each other one cubit and a half; at every intersection a hole is made, nine inches wide, and of the same depth; in each hole are laid horizontally two cuttings of cane, each containing three joints; finally under them is put a little dung, and above them an inch of mould. Then water each hole with a pot, from a channel running at the upper end of the field. On the two following days this must be repeated. Until the end of the third month, water every other day. From the third to the sixth month, the field must, once in eight days, be ploughed between the rows of holes; and at the same time, should there be any want of the usual rain, it must be watered. At the first ploughing a little dung must be given, and at the end of six months the field must be copiously manured. At this time channels are formed winding through among the canes; so that every row is between two channels. When the rainy season is over, these channels must be filled with water, once in eight days in hot weather, and once a month when it is cool. At the beginning of the eighth month the whole field is hoed, and at the end of two months more this is repeated. The cane here is never tied up. A *Candaca-land* is estimated to contain 7000 holes; but in this there must be some mistake; for allowing $1\frac{1}{2}$ cubit for each hole, 7000 would not plant an acre; whereas the *Candaca* of land that I measured contained $3\frac{324}{1000}$ acres. The produce of a *Candaca* of land is stated to be about 14,000 *Seers*, each of 24 *Rupees* weight; which,

according to my measurement, would be about $19\frac{1}{2}$ hundred-weight of *Jagory* per acre: but, if 7000 holes at the distance from each other of $1\frac{1}{2}$ cubit produced this quantity, it would be at the rate of above 93 hundred-weight for the acre, which is much more than can be allowed.

Sugar-mill. I. 341 II. 457

The sugar-mill used here is the same with that which the farmers of *Chenapatam* employ. In the course of twenty-four hours it gives as much juice as produces three boilings, each of about a hundred-weight of *Jagory*.

Labour performed by one plough.

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Soils fitted for *Car' Ragy*.

A rich black soil is here esteemed the best for *Ragy*; next to that the red soil usually preferred to the eastward; but it is sown also on sandy land, and grows there very well, if it have plenty of manure.

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A few days after reaping the former crop, the field is ploughed, and the ploughings are repeated once or twice a month, as opportunity offers, till within fifteen days of the sowing season, which lasts all the two months following the vernal equinox. In the course of these fifteen days two ploughings are given; and then the field is manured with dung, and ploughed again. After the first shower of rain that happens, sow the *Ragy* seed broad-cast, and plough it in; at the same time put in rows of the accompanying seeds, at two cubits distance, by dropping them in the furrow after a plough. On the fifteenth, twenty-second, and twenty-ninth days, draw the hoe called *Cuntay* through the field, in order to destroy superfluous plants. On the forty-fifth day remove weeds with a knife. The *Ragy* is ripe in four months. The fields rated in the public accompts, as being of a size sufficient to sow a *Candaca* of *Ragy*, in fact require somewhat more. I measured one, and found it to contain $7\frac{6446}{10000}$ acres; and making allowance for the difference between the public accompts and the quantity said to be usually sown, we may estimate that 7 acres are sown with one *Candaca* of *Ragy* seed. One acre will therefore sow $2\frac{78}{100}$ pecks; and, thirty-two seeds being reckoned a good crop, will produce in favourable circumstances rather more than $22\frac{1}{5}$ bushels, beside what grows in the drills.

A second crop after *Ragy*.

In very rich soils, nothing is put in drills along with *Ragy;* but immediately after that grain has been cut, a second crop of *Carlay (Cicer arietinum)* is sown, which does not injure the ground. Sometimes a second crop of *Shamay* (*Panicum miliare* E. M.), or of *Huts' Ellu (Verbesina sativa* Roxb: MSS.), is taken; but these exhaust the soil much. When rain does not come at the proper season, the *Ragy* fields are sown with *Huruli, Carlay, Huts' Ellu,* or *Cari-Shamay.* The two leguminous plants do not injure the soil; but the *Huts' Ellu* and *Shamay* render the succeeding crop of *Ragy* very poor. *Ragy* straw is here esteemed the best fodder for cattle; and, except in times of scarcity, that of rice is never used.

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Huruli, Dolichos biflorus, or Horse-gram.

The pulse called *Huruli* is, next to *Ragy*, the most considerable dry-crop. It is of two kinds, white and black; but they are never kept separate. It grows best on a light or stony soil, and the largest crops are had after a fallow of three years; but when there is a sufficient number of farmers, no ground is kept fallow; the fields of a poor soil, not fit for *Ragy*, are cultivated alternately with *Huruli*, and with *Mar' Ellu*, or *Cari Shamay*. The crop of *Huruli* that is sown on *Ragy*-land when the rain fails is very poor. For *Huruli* plough two or three times in the course of ten days, during the month immediately preceding the autumnal equinox. Then after the first rain sow the seed, and cover it with the plough. It ripens in three months. The husks are reckoned good fodder. The quantity of seed is half as much as that of *Ragy*, or about $1\frac{11}{100}$ peck an acre; and, twenty seeds being reckoned a good crop, an acre will produce rather less than 7 bushels.

Cari Shamay.

Cari Shamay is the next most considerable dry-crop. How far this differs from the *Sal Shamay*, which is the *Panicum miliare* E. M., I had no opportunity of learning. However, it is probably a mere variety. It is commonly sown on the poorer soils alternately with *Huruli;* but is also occasionally sown on *Ragy*-fields, when in the early part of the season there has been a failure of rain. In the last case, the crop of *Shamay* is great; but the succeeding crop of *Ragy* is very bad. The cultivation commences in the month preceding the vernal equinox. Plough then three or four times, sow broad-cast, and harrow with the rake drawn by oxen. It ripens in three months without farther trouble. The straw is here never given to cattle. For the same extent of ground the same quantity of *Shamay* seed is required as of *Ragy*. The produce in a good crop is twenty fold, or rather less than fourteen bushels an acre.

The next most considerable crops are the leguminous plants called *Carlay* and *Udu*, of which about equal quantities are raised.

Carlay, or Cicer arietinum.

Carlay always requires a black mould; and is cultivated partly as a second crop after *Ragy*, and partly on fields that have given

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no other crop in the year. In this case, the produce is much greater, and the manner of cultivation is as follows. In the two months preceding the autumnal equinox, the *Ragy* having been cut, the field is ploughed once a month for fourteen or fifteen months. Then in the course of four or five days plough twice. After the last ploughing, drop the seed in the furrows at six inches distance from each other, and it ripens without farther trouble. The seed is sown as thick as that of *Ragy*, and a *Candaca* sowing in a good crop produces 1400 *Seers*, which is at the rate of rather less than seven bushels an acre.

Doda Udu.

There are here two kinds of the pulse called *Udu;* the *Doda*, or great, which is reaped in the dry season; and the *Chittu*, or little, which comes to maturity in the rains. I had no opportunity of learning how far the great differs from the little *Udu*, which is the *Phaseolus minimos* of Dr. Roxburgh's MSS. It is cultivated on good *Ragy*-soils, and is taken as an alternate crop with that grain. After cutting the *Ragy* the field is ploughed once a month for a year. At the last ploughing some people sow the seed broad-cast, and cover it with the plough; others drop it into the furrow after the plough. In this last case, the young plants are always too thick; and when they are a month old, part of them must be destroyed by the hoe drawn by oxen. If sown broad-cast, the weeds at the end of a month must be removed by the hand. The seed required is $\frac{5}{14}$ of that sown of *Ragy*, or rather less than a peck for the acre. The broad-cast sowing gives least trouble, and produces about $3\frac{11}{100}$ bushels an acre. The drilled *Udu* produces $\frac{1}{4}$ more. It ripens in three months.

Chittu Udu, Phaseolus minimos, Roxb: MSS.

The *Chittu*, or lesser *Udu*, is cultivated at the same season with the *Car' Ragy*, and requires four months to ripen. Owing to a more luxuriant growth, even when sown broad-cast, it requires the use of the hoe drawn by oxen. It is not, however, so productive as the great *Udu;* rather less than three bushels an acre being a good crop. The quantity of seed sown is the same. Cattle eat the straw

of *Udu*, when mixed with the husks, and with those of *Huruli*, *Carlay*, *Avaray*, and *Tovary*, and with the spikes of *Ragy*, after these have been cleared of grain. This fodder is reckoned superior to even the straw of *Ragy*.

Car' Ellu, or *Sesamum*.

The next most considerable crop is *Car' Ellu*, or *Sesamum*. It is sown on *Ragy-fields* that consist of a red soil, and does not exhaust them. The field is ploughed as for *Ragy*, but is not allowed manure. The seed is mixed with sand, sown broad-cast, and harrowed with the rake drawn by oxen. It ripens in four months without farther trouble. The seed is equal to $\frac{1}{17}$ of the *Ragy* that would be sown on the same field, which is less than half a peck an acre. The produce is about twenty seeds, or about $2\frac{1}{2}$ bushels an acre. The straw is burned, and the ashes are used for manure.

Mar' Ellu.

The next most considerable crop is *Mar' Ellu*, which is the same plant that in other places is called *Huts' Ellu*, and which Dr. Roxburgh considers as a species of *Verbesina*. It is sown on poor soils alternately with *Huruli*, and is cultivated in the same manner. It is sown also on *Ragy*-fields, when the crop has failed for want of rain. The rich only can have recourse to this, as the next crop of *Ragy* would suffer unless it received an extraordinary quantity of manure. On this ground it produces most. On the poor soils it produces about twelve fold; but the quantity sown on an acre amounts to less than six *Seers*.

A very small quantity of the wheat called *Juvi Godi (Triticum monococcum)* is raised here on fields of a very rich soil, from which alternate crops of *Carlay* and of it are taken. The manure is given to the *Carlay*; the wheat requires none. From the winter to the summer solstice plough once a month. Then in the following month plough twice, sow broad-cast, and cover the seed with the plough. It ripens in four months without farther trouble. The seed required for an acre is about $4\frac{77}{100}$ pecks; the produce is ten seeds, or rather less than twelve bushels.

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I have reason to think that this account of the cultivation of dry grains is not materially erroneous.

Sept 11—13. *Jitagara*, or labourers employed in agriculture.

The labouring servants of the farmers are here called *Jitagara*, or hired men. They eat once a day in their master's house: a good worker gets also 40 *Fanams*, or about 1*l.* 6*s.* 10*d.* a year; and an indifferent man gets only 30 *Fanams*, or about 1*l.* A woman gets yearly 5 *Fanams* worth of cloth, and 4 *Fanams* in money, and eats twice a day at her master's expense. Their diet consists of *Ragy-flour* boiled into a kind of porridge. The seasoning consists of a few leaves bruised with capsicum and salt, and boiled in a little water. It is only the rich that use oil or *Ghee* (boiled butter) in their diet. Milk is in such plenty, that the *Jitagara* may have as much *Tyre*, or sour curds, as they please.

Farmers and farms.

Owing to the devastations of war, the people near *Priya-pattana* are at present so poor, that they are cutting off the unripe ears of corn, and parching them to satisfy the cravings of appetite. Before the invasion of the Bombay army under General Abercromby, the poorest farmers had two ploughs; some rich men had fifteen; and men who had from eight to ten were reckoned in moderate circumstances. A man who had two ploughs would keep 40 oxen young and old, 50 cows, two or three male buffaloes, four females, and 100 sheep or goats. A rich man would have 200 cows, and other cattle in proportion. One plough can cultivate 10 *Colagas* of rice-land, and 5 *Colagas* of *Ragy*-field; altogether a little less than four acres. This is too small an allowance; and the farmers seem to under-rate the extent of a plough of land, as much as they exaggerate their former affluence. They pretend, that the officers of government are forcing them to cultivate more than their stock could do properly, by which means their crops are rendered poor. The officers deny the charge, and say, that since *Tippoo's* death this has not been practised. In Indian governments, however, it is a common usage.

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Tenures.

By the ancient custom, the *Gaudas*, or chiefs of villages, were hereditary, and the heirs still retain the dignity; but the power is lodged with the renters, who offer the highest sum; and every year, in the month preceding midsummer, a new *Jummabunda*, or agreement, is made. A farmer cannot be turned out of his possession so long as he pays the fixed rent; but if he gives over cultivation, the officers of government may transfer his lands to any other person.

Rent on dry-field.

The rent for dry-field is paid in money, according to an old valuation made by *Chica Déva Ráya* of *Mysore;* and most of it pays 40 *Fanams* a year for every *Candaca*, or almost 3*s.* 6*d.* an acre. This includes both good and bad soils; care having been taken, in laying out the fields, to include in each nearly an equal proportion of the four different kinds of soil. In some high places, where there is no good soil, the *Candaca* lets at twenty *Fanams*, or at about 20*d.* an acre. Some land that is now cultivated for rice, having been dry-field at the time when the valuation was made, continues to pay the old rent.

Rent of watered-lands.

By far the greater part, however, of the wet-land pays by a division of the crop, made as follows: the produce of a *Candaca-land* having been taken,

	Cand.	*Col.*
The farmer gets for his labour - - -	1	0
The *Mety*, or priest to the stake of *Cassia Fistula* -	0	5
The *Saktis*, or destructive spirits - - -	0	2
The watchman, *Talliari*, or *Barica*, as he is here called -	0	2
The *Shanaboga* of the *Hobly*, or accomptant of the division	0	1
The *Nirgunty*, or conductor of water - -	0	2
The ironsmith - - - - - -	0	2
	1	14

The remainder is equally divided between the government and farmer, the latter taking the sweepings at the bottom of the heap.

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Free-lands.

In every village there are some free-lands that pay no rent. In this district there are free-lands to the annual value of seventy-eight *Pagodas*, which formerly belonged to the *Panchángas*, or village astrologers; but since *Tippoo's* death they have been given to *Vaidika Bráhmans*. These formerly had many villages entirely belonging to them, which were reassumed by *Tippoo*, and have not yet been given back. The same is the case with the lands that formerly belonged to the temples. The *Talliari* of each village, who is a kind of watchman and beadle, has, as pay, from twenty to thirty *Fanams* worth of land free from rent. Here this officer performs the annual sacrifice to the village god; for most of the hereditary *Gaudas* wear the *Linga*, and will not put any animal to death. The hereditary *Gauda* and ironsmith had each a portion of land, for which they paid only half rent. The full tax was imposed on these lands by *Tippoo*, and is still continued. Some *Gaudas* manage their villages on account of the government, and pay in the proceeds of their collections. These persons receive wages.

Kitchen gardens.

In this part of the country there are no professed gardeners; but every farmer, for his own use, raises a few greens and vegetables in a small spot behind his house.

Plantations of palm-trees.

The plantations of palm-trees were formerly extensive, and there is much soil fit for them; but they have been much reduced by the disasters of war. They belong chiefly to *Bráhmans*. Having assembled some of the proprietors, they gave me the following account. The *Areca*, or *Betel-nut* palm, requires an *Eray*, or black mould, on a substratum of lime-stone; and of such a nature that water may be had at no greater depth than three cubits. This soil does not agree with the coco-nut palm; but rows of these are always put round the plantations of *Areca*, in order to shelter them.

Areca, or *Betel-nut*.

To make a new plantation of *Areca*, take a piece of proper ground, and surround it with a hedge of the *Euphorbium Tirucalli*, and some rows of young coco-nut palms. Then, at the distance of twelve cubits, dig rows of pits, two cubits deep, and one and a half in

diameter. These pits are six cubits distant from the nearest in the same row. In the second month after the vernal equinox, set in these pits young plantain trees (*Musa*), and give them water once; after which, unless the weather be uncommonly dry, they require no more. Two months afterwards hoe the whole garden, and form a channel in the middle between every two rows of plantain-trees. The channels are intended to carry off superfluous water, and are a cubit wide, and two feet deep. In the month immediately following the winter solstice, hoe the whole garden a second time. In the following month, between every two rows of plantain-trees, make two rows of holes at six cubits distance, and one cubit wide and deep. Fill each hole half up with fine mould; and, in this, place two ripe nuts of the *Areca*, six inches asunder. Once in two days, for three months, water each hole with a pot. The shoots come up in *Vaisákha;* after which they get water once only in five days. The holes must be kept clear of the mud that is brought in by the rain; and for three years must, on this account, be daily inspected. In the month following the autumnal equinox, give a little dung. Ever afterwards, the whole garden must be hoed three times a year. After they are three years old, the *Areca* palms must be watered every other day in hot weather; when it is cool, once in every four or five days; and not at all in the rainy season. The waterings are performed by pouring a potful of water to the root of each plant. In the beginning of the seventh year the weakest plant is removed from each hole; and at each digging, for three years more, every tree must receive manure. After this, for three years, the young palms have neither dung nor water. In the fourteenth year they begin to bear, and in the fifteenth come to perfection, and continue in vigour until their forty-fifth year, when they are cut down.

Betel-leaf, or *Piper Betle.*

When the *Areca* plantation is fifteen years old, in the month immediately following the vernal equinox a hole is dug near every tree, one cubit deep and one and a half in width. After having

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exposed the earth to the air for a month, return it into the holes, and allow it to remain for another month. Then take out a little of the earth, smooth the surface of the pit, and bury in it the ends of five cuttings of the *Betel-leaf-vine*, which are placed with their upper extremities sloping toward the palm. Once every two days, for a month, water the cuttings, and shade them with leaves. Then remove the leaves, and with the point of a sharp stick loosen the earth in the holes. In the first year the waterings must be repeated every other day, and the whole must once a month be hoed; while at the same time dung is given to every plant. In the second year, the vines are tied up to the palms; once in two months the garden is hoed and manured; and it is in the hot season only that the plants are watered. At the end of the second year the vines begin to produce saleable leaves. In the third year, and every other year afterwards, so much of the vines, next the root, as has no leaves, must be buried. Once in six months the garden must be hoed and manured; and in the hot season the vines must be watered every other day.

Manner of keeping up these plantations.

The owners of these plantations are annoyed by elephants, monkies, and squirrels; and, besides, both palms and vine are subject to diseases; one of which, the *Aniby*, in the course of two or three years kills the whole. Except when these causes of destruction occur, the vine continues always to flourish; but, as I have before mentioned, the palm begins to decay at forty-five years of age, and is then removed, care being taken not to injure the vine. Near this is made a fresh hole, in which some persons place two nuts for seed, and others plant a young seedling. In order to support the vine, during the fifteen years which are required to bring forward the new palm, a large branch of the *Haruana*, or *Erythrina*, is stuck in the ground, and watered for two or three days; when it strikes root, and supplies the place of an *Areca*. The plantain trees are always kept up. The crop-season of the *Betel-nut* lasts *Aswaja*, *Kartika*, and *Márgasírsha*.

Produce.

It is said, that a *Candaca* of land, rice-measure, will plant 1000 *Areca* trees; but it is evident, that, at six cubits distance, above 2000 trees ought to be placed in the *Candaca* of $3\frac{874}{1000}$ acres. Considerable allowances must, however, be made for the hedge, and for the ground occupied by the surrounding coco-nut palms. If for these we take forty feet, the remainder of the *Candaca* would plant 1200 *Arecas*. Of these, in an old garden, part are useless; as the young trees put in to supply the place of decayed ones do not bear fruit. Perhaps the 1000 trees may therefore be considered as a just account of the actual number of productive *Arecas* on a *Candaca* of land. The produce of these, stated by the proprietors, amounts to forty ox-loads of wet-nut, yielding thirty *Maunds* of the *Betel* as prepared for the market. The quality of the nut is equal to that of the *Walagram;* and it is bought up chiefly by the merchants of *Mysore* and *Seringapatam.* As these make no advances, it is evident that the proprietors are in easy circumstances.

On examining the people of the town on this subject, they said, that seven good trees, or ten ordinary ones, produce a load of fruit containing 6000 nuts. A good tree therefore gives 857, and an ordinary one 600 nuts. Sixty thousand nuts, when prepared for sale, make a load of between seven and eight *Maunds.* One thousand ordinary trees at this rate should procure 75 *Maunds,* or more than double of what was stated by the proprietors. I am indeed inclined to believe, that their statement was merely accommodated to the share which the government actually receives on a division, in which it must be always defrauded. The 75 *Maunds* from a *Candaca*-land agrees nearly with the produce that *Trimula Nayaka* stated at *Madhu-giri,* and on his veracity I depend. The towns-people also say, that the mode of cultivation, as stated to me by the proprietors, is only what ought to be done; but that the present cultivators never give themselves so much trouble, and very seldom hoe their plantations throughout; which is indeed confirmed by their slovenly condition. *Purnea* has here a garden containing

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900 *Arecas*, which, his servants say, produce about 52 loads of raw fruit. This would make the produce of 1000 trees rather more than $42\frac{1}{2}$ *Maunds* of prepared nut.

Rent of palm plantations.

While a new plantation is forming, the owner pays for every hundred plantain trees, three *Fanams* a year, which will be fifteen *Fanams*, or about 10*s.* for the *Candaca*-land. After the garden grows up, the government gets what is called one half of the boiled *Betel-nut*, or about 15 *Maunds* of that commodity, for the *Candaca*-land. This is worth 75 *Fanams;* which makes the rent paid to the government about 15*s.* an acre, or 2*l.* 10*s.* 4*d.* for 1000 bearing trees. In an old garden nothing is paid for the plantains, or *betel-leaf.* Such a moderate tax will account for the *Bráhmans* being the chief proprietors.

Pasture and cattle.

I have already had occasion to mention the goodness of the pasture in this neighbourhood; and at this season, at least, it keeps the cattle in excellent condition. These are all bred in the house, and are of the small short kind. Formerly they were very numerous. A good cow gives daily two *Pucka Seers* of milk, or a little less than two ale quarts. A good buffalo gives three times that quantity.

Climate.

The following is the account of the climate which was given me by the most intelligent natives of the place. The year is, as usual, divided into six seasons: I. *Vasanta Ritu* comprehends the two months following the vernal equinox. During this the air is in general very hot, with clear sun-shine, and strong winds from the eastward. No dew. Once in ten or twelve days squalls come from the east, accompanied by thunder, and heavy showers of rain or hail, and last three or four hours. II. *Grishma Ritu* contains the two months including the summer solstice. The air is very hot, and there is no dew. The winds are westerly; during the first month weak, but after the solstice strong. It is said, that formerly, during this period, the weather used to be constantly clouded, with a regular, unintermitting, drizzling rain; but for the last half

century such seasons have occurred only once in four or five years; and in the intervening ones, although the cloudy weather continues, the constant rain has ceased, and in its place heavy showers have come at intervals of three or four days, and these are preceded by some thunder. III. *Varshá Ritu* includes the two months preceding the autumnal equinox. The air is cool. The winds are light, and come from the westward. Formerly the rains used to be incessant and heavy; but of late they have not been so copious oftener than about once in four or five years: still, however, they are almost always sufficient to produce a good crop of grass and dry grains, and one crop of rice. *Priya-pattana* has therefore been justly named the Chosen City by the natives of *Karnáta*, who frequently suffer from a scarcity of rain. At this season there is very little thunder. IV. *Sarat Ritu* contains the two months following the autumnal equinox. In this the air is colder, and in general clear; but once in three or four days there are heavy showers from the north-east, accompanied by thunder, but not with much wind. In the intervals the winds are gentle, and come from the westward. Moderate dews now begin. V. *Hémanta Ritu* includes the two months immediately before and after the winter solstice. The air is then very cold to the feelings of the natives. They have never seen snow nor ice, even on the summits of the hills; but to these they very seldom ascend. *Bettada-pura* I conjecture to be about 1800 or 2000 feet perpendicular above the level of the country, which is probably 4000 feet above the sea. It is a detached peak, and is reckoned higher than either *Siddhéswara*, or *Saikia Paravata*, from whence the *Cavery* springs. These two are the most conspicuous mountains of the *Coorg* country, and are surrounded by lower hills. At this season there are heavy dews and fogs; so that until ten o'clock the sun is seldom visible. There is very little wind; but the little that there is comes from the west. This is reckoned the most unhealthy season; and during its continuance intermittent

CHAPTER VIII. Sept. 11—13. fevers are very frequent. VI. *Sayshu Ritu* includes the two months immediately preceding the vernal equinox. The dews decrease gradually in the first, and disappear in the second month. There is no rain, and the atmosphere is clear, with remarkably fine moonshine nights. The air is cool and pleasant. The winds are from the eastward, and moderate. Except in *Hémanta Ritu,* fevers are very rare. In the *Coorg* country the air is hot and moist, and by the natives of this place is reckoned very unhealthy.

Weights, measures, and coins. The *Cucha Seer* and *Maund* of the *Sultany* standard are here in use. The *Candaca* of grain contains 140 *Seers,* and is nearly $4\frac{15}{100}$ bushels. Accompts are kept in *Canter' Ráya Pagodas, Fanams,* and *Dudus.* Bombay cash is current; but *Cowries* are not used. The *Madras* and *Sultany Rupees* exchange for $3\frac{1}{4}$ *Fanams,* although the latter is most valuable by about $\frac{4}{5}$ per cent. The *Bombay Rupee* passes only for three *Fanams.*

Commerce and manufactures. *Priya-pattana* enjoys a considerable share of the trade between the *Mysore* dominions, and those of *Coorg;* but the place is now very poor, the *Vir' Ráya* having carried off all the rich merchants. For their accommodation he has built a new town called, after his own name, *Vir' Ráya Petta;* and, as he gives them good encouragement and protection, they are not likely to return. There is no trade at *Modicarey* and *Nacnadu,* the two places where the *Rája* usually resides. From *Mysore* are sent the dry grains, cloths, *ghee,* oil, *jagory,* coco-nuts, tobacco, garlic, capsicum, *betel-leaf,* iron, steel, blankets, and tamarinds. The returns are rice, salt, and all the kinds of goods which are imported at *Tellicherry.* The sales are chiefly made at a weekly market in *Vir' Ráya Petta.* The quantity of rice that passes the custom-house of *Priya-pattana* annually from *Coorg,* is between five and six thousand ox-loads, each containing from seven to eight *Maunds,* or about 182 lb. The only cloth made here, is a very small quantity of coarse cotton stuff of a thick fabric. It is manufactured by a cast of weavers called the *Torearu.*

There is at present no *Gyda Cavila*, or forest-renter; but formerly there used to be one, who, having made friendship with the wild tribes called *Cad' Eravaru*, and *Jainu Curubaru*, procured from them honey and wax, *Popli chica*, a dye, *Dupada* wood, *Gunti Beru*, a root used in dyeing, *Cad' Arsina*, or wild turmeric, and *Cadu Baly Aly*, or the leaves of the wild plantain tree, which are used by the natives as dishes. For timber, or grass, no rent was demanded.

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Sandal-wood grows in the skirts of the forest. The people of *Coorg* were in the habit of stealing a great part of it; but since the country received the Company's protection they have desisted from this insolence. It is often planted in gardens and hedges; and, from the richness of the soil, grows there to a large size; but in such places the timber has little smell, and is of no value. It is a *Daray*, or stony soil only, that ro duces fine sandal. It may be felled at any season; and once in twelve years, whatever has grown to a proper size is generally cut. On these occasions, this district produces about 10,000 *Maunds*, or above 2000 hundred-weight. The whole was lately sold to the agents of the Bombay government, and a relation of *Purnea's* was employed to deliver it. Much to the credit of the *Dewan*, this person was put in confinement, having been detected in selling to private traders some of what he cut, and also in having sold great quantities that were found buried. During the *Sultan's* government a great deal of it arrived at maturity, which he would not sell. In general, this was privately cut, and concealed under ground, till an opportunity offered of smuggling it into the *Vir' Ráya's* dominions. The *Amildars* have now received orders to cut all the sandal-wood in their respective districts, and to deliver it to the Bombay agents. They know nothing of the conditions of sale. At present, no sandal-oil is made at *Priya-pattana*.

Sandal-wood, *Santalum album*.

The woods are infested by wild elephants, which do much injury to the crops. They are particularly destructive to the sugar-cane

Elephants.

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and palm-gardens; for these monstrous creatures break down the *Betel-nut* tree to get at its cabbage. The natives have not the art of catching the elephant in *Kyddas*, or folds, as is done in Bengal; but take them in pit-falls, by which a few only can be procured, and these are frequently injured by the fall.

Strata and rocks.

The *strata* of rocks in this neighbourhood are much concealed; but, from what I have seen of them, I am persuaded that their direction is different from that of the *strata* toward the north-east. They run about west-north-west and east-south-east, a point or two more or less I cannot determine, as my compass was stolen at *Bangalore*, nor could I repair my loss at *Seringapatam*. The most common rock here is hornblende. In the buildings of the place there are two excellent stones: one is what the Germans call regenerated granite; the other is a granite, with gray quartz and reddish felspar disposed in flakes, or alternate plates; but in such an irregular manner, that it does not appear to me that they could be so arranged by any deposition from water, however agitated.

Sept. 14. *Hanagodu*, and the neighbouring country.

14th *September*.—In the morning I went three cosses to *Hanagodu*, the chief place of a division, called a *Hobli*, dependent on *Priya-pattana*. It has a mud fort; but the suburb is open, and contains about fifty houses. The country is naturally very fine; little of it is cultivated however, and it is infested with tigers and elephants that are very destructive. *Hanagodu* is one coss and a half distant from the southern frontier of *Priya-pattana*, and at a similar distance from the present boundary of *Coorg*. The *Vir' Rája* is said to have made a ditch and hedge along the whole extent of the old eastern boundary of his dominions, which runs within three cosses of *Hanagodu*. One half of this distance, next to his hedge, was reckoned a common, or neutral territory; but the *Rája* lately claimed it as his own; and, the Bombay government having interfered, *Tippoo* was compelled to acknowledge the justice of the claim. The whole country between *Hanagodu* and the frontier of *Coorg* has for sixty years been waste.

Frontier of *Coorg*.

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Sept. 14. *Lakshmana* river, and irrigation from thence.

The *Lakshmana* river passes within a quarter of a mile to the eastward of *Hanagodu*, and at present contains much water. At all seasons it has a considerable stream; and at this place is the uppermost of its dams. Advantage has been taken of a natural ledge of rocks which cross the channel, and stones have been thrown in to fill up deficiencies. The whole now forms a fine dam, over which rushes a cascade about a hundred yards long, and fourteen feet high; which, in a verdant and finely wooded country, looks remarkably well. This dam sends off its canal to the eastward, and waters the ground that requires for seed 100,000 *Seers* of rice. If this be sown as thick as at *Priya-pattana*, the ground irrigated will amount to 2678 acres. On the ground above the canal, as the declivity in many places is very gentle, much might be done with the machine called *Capily;* but the use of that valuable instrument is here not known. It is probable, that on this river several additional dams might be formed. Here it is said, that of the seven, which have been built, three are now out of repair.

Gungricara Woculigas, who follow the *Bráhmans*.

The *Gungricara Woculigas* are in this neighbourhood the most common race of cultivators, and are a *Súdra* tribe of *Karnáta* descent. Some of them wear the *Linga*, others do not. It is from these last that I take the following account. The two sects neither eat together nor intermarry. They act as labourers of the earth, and as porters. The head of every family is here called *Gauda;* and an assembly of these settles all small disputes, and punishes transgressions against the rules of cast. Affairs of moment are always referred to the officers of government. The business of the cast, as usual, is punishing the frailty of the women, and the intemperance of the men. If the adulterer be a *Gungricara*, or of a higher cast, both he and the husband are fined by the officers of government, from three to twelve *Fanams*, or from two to eight shillings, according to their circumstances. The husband may avoid this fine by turning away his wife, in which case she becomes a concubine of the kind called *Cutiga;* but this is a length to which the husband

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seldom chooses to proceed; the difficulty of procuring another wife being considered as a more urgent motive than the desire of revenge. If, however, the adulterer has been of a low cast, the woman is, without fail, divorced, and delivered over to the officers of government, who sell her to any low man that will purchase her for a wife. In this cast there are two kinds of *Cutigas:* the first are such women as have committed adultery and their descendants, with whom no person of a pure extraction will intermarry; the others are widows, who, having assembled their relations, obtain their consent to become lawful *Cutigas* to some respectable man. The children of these are legitimate, although the widows themselves are considered as inferior to virgin wives. A man never marries a woman who is of the same family in the male line with himself. The men are allowed a plurality of women, and the girls continue to be marriageable even after the age of puberty. None of them can lawfully drink spirituous liquors. Some of them eat meat, but others abstain from this indulgence. These two do not intermarry, and this division is hereditary. Some of them can keep accompts, and even read legends written in the vulgar tongue. Some worship *Siva,* without wearing the *Linga;* and some worship *Vishnu;* but this produces no division in cast. They do not offer bloody sacrifices to the *Saktis;* but pray to the images of the *Baswa,* or bull of *Iswara,* of *Marima,* and of the *Caricul,* or village god. They do not believe in the spirits called *Virika;* but indeed that worship does not seem to extend to the south of the *Cavery.* They do not take the vow of *Dáséri.* They bury the dead, and believe that in a future state good men will sit at the feet of God. Even a bad man may obtain this happiness, if at his funeral his son bestow charity on the *Dáséris.* An unfortunate wicked man, who has no son to bestow charity, becomes as mud. By this, I suppose, they mean that his soul altogether perishes. Their *Guru* is an hereditary chief of the *Sri Vaishnavam Bráhmans,* and lives at *Mail-cotay.* He gives them *Chakrántikam,* holy-water, and

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consecrated rice, and from each person accepts of a *Fanam* a year, as *Dharma*. The *Panchánga*, or village astrologer, acts as *Puróhita* at marriages, at the building of a new house, and sometimes at the annual ceremony performed in commemoration of their deceased parents. On these occasions, he reads *Mantrams*, which the *Gungricara* do not understand, and of course value greatly. He is paid for his trouble. Sept. 14.

Sept. 15. Difficulty in procuring accurate information.

15th *September*.—I set out very early with an intention of going to *Hegodu Devana Cotay*, where, as I had been informed, I should have an excellent opportunity of examining the forests that invest the western frontiers of the *Mysore* dominions. I was two hours employed in getting my baggage ferried over the *Lakshmana*; for there was only one leather boat, about six feet in diameter. During this time, I was informed that the forests were six cosses from *Hegodu Devana Cotay*; and that the nearest inhabited place to them was a miserable village half way from the town, which afforded no supplies of any kind. I was also informed, that, in the neighbourhood of where I then was, some people were employed in cutting timber for the garrison at *Seringapatam*, and that here I might see exactly the same kind of forest that I could at *Hegodu Devana Cotay*, In consequence of this information, I went half a coss up the right bank of the river, to a ruined village named *Hejuru*, where the workmen had taken up their abode in an old temple. At this place there are evident remains of a considerable fort, which about seventy years ago was destroyed by the *Vir' Ráya*. Twenty or thirty houses had been again assembled, when, on General Abercromby's coming up to *Priya-pattana*, the *Vir' Ráya* destroyed it again, and carried away all the inhabitants. One rich farmer has since returned. Part of the soil in this neighbourhood is the blackest that I have ever seen, some peat excepted. It is not very stiff, and is said to be remarkably productive of wheat and *Carlay (Cicer arietinum)*; but at present it is waste.

Hejuru.

Black soil.

CHAPTER VIII. Sept. 14.

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Sept. 15. Difficulty in procuring accurate information.

Hejuru.

Black soil.

CHAPTER VIII.

Sept. 16—18.

Forests.

16th, 17th, and 18th *September*.—I remained at *Hejuru*, endeavouring to procure an account of the forests, in which I met with much less success than might reasonably have been expected. I went into them about three cosses, to a small tank, farther than which the natives rarely venture, and to which they do not go without being much alarmed on account of wild elephants. In this forest these animals are certainly more numerous, than either in *Chittagong* or *Pegu*. I have never seen any where so many traces of them. The natives, when they meet an elephant in the day-time, hide themselves in the grass, or behind bushes, and the animal does not search after them; but were he to see them, even at a distance, he would run at them, and put them to death. It is stragglers only from the herds, that in the day-time frequent the outer parts of the forest. The herds that at night destroy the crops, retire with the dawn of day into the recesses of the forest; and thither the natives do not venture, as they could not hide themselves from a number. It is said, that at the above-mentioned tank there was formerly a village; but that both it and several others on the skirt of the forest have been lately withdrawn, owing to an increased number of elephants, and to the smaller means of resistance which the decrease of population allows.

Elephants.

Soil and appearance of the forests.

The soil of these forests is in general very good, and much of it is very black. In places where the water has lodged, and then dried up, such as in the print of an elephant's foot, this black soil assumes the appearance of indurated tar. The country is by no means steep, and is every where capable of cultivation; but of this no traces are to be seen in any part of the forest. Near *Hejuru* the trees are very small; for so soon as any one becomes of a useful size it is cut. As the distance and danger increase, the trees gradually are allowed to attain a larger growth; and at the tank they are of considerable dimensions. Farther on, they are said to be very stately. The forest is free from underwood or creepers; but the whole ground is

covered with long grass, often as high as a man's head. This makes walking rather disagreeable and dangerous, as one is always liable to stumble over rotten trunks, to rouse a tiger, or to tread on a snake. These latter are said to be found of great dimensions, and have been seen as thick as the body of a middle-sized man. The length of this kind is not in proportion to the thickness, and does not exceed seven cubits. Although I passed a great part of these three days in the forest, I saw neither elephant, tiger, nor serpent, and escaped without any other injury than a fall over a rotten tree.

Large serpents.

These forests are very extensive, and reach to the foot of the western *Ghats;* but in this space there are many valuable and fertile tracts, belonging to the *Rájas* of *Coorg* and *Wynaad.* The trees on the *Ghats* are said to be the largest; yet in the dominions of *Mysore* there is much good timber. The kinds differ much less from those in the *Magadi* range of hills, than, considering the great difference of moisture and soil, might have been expected; for the rains are here copious, and the soil is rich; neither of which advantages are possessed by the central hills of the *Mysore Rája's* dominions. In the woods of *Hejuru,* however, there are very few of the prickly trees; whereas a large proportion of those at *Magadi* are *mimosas.* The following are the trees which I observed in the forest at *Hejuru.*

Extent and produce of these forests.

1. *Doda Tayca. Tectona robusta.*
In great plenty.

2. and 3. *Cadaba. Nauclea parvifolia,* and *Nauclea cordifolia* Roxb.
These two species, although very distinct, are by the woodmen of this place included under the same name. Both grow to a large size, and their timber is reckoned equal to that of the *Teak,* or more properly *Tayc.*

4. *Honnay,* or *Whonnay. Pterocarpus santolinus.*
Is found in great plenty, and is a beautiful and useful tree.

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5. *Biriday. Pterocarpus.*
This is the same kind of tree with that at *Magadi.* By the Mussulmans it is called *Sissu.*

6. *Dalbergia paniculata* Roxb.
Being useless, it has obtained no native name.

7. *Cagali. Mimosa Catechu* Roxb. Fl. Cor. No. 174.
Grows in the skirts of the forest only, and never reaches to a large size.

8. *Bunni. Mimosa.*
This is very like the *Cagali.* Its timber is of no use. The tree is esteemed holy, as the shaft of *Ráma's* spear is said to have been made of its wood.

9. *Biluara. Mimosa odoratissima.*
At *Magadi* this tree was called *Betta Sujalu.* It is a large valuable timber-tree.

10. *Mutti. Chuncoa Muttea* Buch. MSS.
The natives here have several appellations which they give to this species; such as *Cari,* or black; *Bily,* or white; and *Tor,* by which name I knew it at *Magadi.*

11. *Alalay. Myroballanus Arula* Buch. MSS.
Grows to a very large size; but the fruit, or *myrobalans,* are the only valuable part; and, owing to the remote situation of the place, these are not collected.

12. *Hulivay. Chuncoa Huliva* Buch. MSS.
There is only one kind of this tree, although it has a great variety of names given to it by the natives. It is a large tree, and its timber is good.

13. *Tari. Myroballanus Taria* Buch. MSS.
Very large.

14. *Nai Bayla. Mimosa leucophlea* Roxb.

15. and 16. *Muruculu. Chirongia sapida* Roxb. MSS. and *Chirongia glabra* Buch. MSS.
These two trees, although they are lofty, do not grow to a great

thickness. The woodmen talk of *Hen* and *Ghindu Muruculus*, or female and male; but they do it without precision, and do not apply one term to the one species, and another to the other.

17. *Gumshia. Gumsia chloroxylon* Buch. MSS.

It does not grow to a large size; but the timber is said to be very strong, and has a singular green colour. Ropes are made of its bark.

18. *Dinduga. Andersonia Panchmoun* Roxb. MSS.

Grows to a very large size. Its timber is valuable.

19. *Shagudda. Shaguda Cussum* Buch. MSS.

A large tree. Its timber, being very rarely found sound at heart, is not much esteemed.

20. *Gheru. Anacardium* Juss.

21. *Nelli. Phylanthus Emblica.*

It is the fruit only of these two trees that is of any use.

22. *Goja. Clutia stipularis?*

A large tree, of which the timber is reckoned good.

23. *Schrebera albens* Willd.

Has here no name. It is, in fact, an *Eleodendrum.*

24. *Tupru. Diospyrus* Buch. MSS.

Here it is always a large tree, and its timber is esteemed good.

25. *Jugalagunti. Diospyrus.*

The same prejudice prevails here, as at *Magadi*, against this tree.

26. *Culi.*

A large tree producing good timber.

27. *Cad' Ipay. Bassia.*

The leaves are different in size and shape from those of the *Bassia longifolia*, which is planted near villages. The art of extracting a spirituous liquor from the flowers is here unknown.

28. *Nærulu. Calyptranthes Jambulana* Willd.

29. *Gaula. Pelou Hort. Mal.*

The fruit is said to be as large as that of the *Artocarpus integrifolia*, and to be a favourite food with the elephant.

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30. *Budigayray.*

The fruit is said to poison fish.

31. *Navulady. Vitex alata* Buch. MSS.

A large timber tree.

32. *Jala. Shorea Jala* Buch. MSS.

A large timber tree. No *lac* is made here.

33. *Nirany.*

An useless tree.

34. *Gurivi. Ixora arborea* Roxb. MSS.

Used for torches.

35. *Wudi. Schrebera Sweitenioides* Roxb.

A large tree.

36. *Chadrunshi. Bauhinia.*

A small tree of no value.

37. *Bamboos.*

Large, but not solid.

38. *Chaningy. Lagerstromia parviflora* Roxb.

39. *Goda.*

The *Amutty* of *Magadi.* Large and in plenty. Here its timber is reckoned to be bad.

40. *Shilla.*

A large excellent timber-tree, of which I could get no specimen. It is quite different from the *Shalay* of *Magadi.*

Cad' Curubaru.

The *Cad' Curubaru* are a rude tribe of *Karnáta*, who are exceedingly poor and wretched. In the fields near villages they build miserable low huts, have a few rags only for covering, and the hair of both sexes stands out matted like a mop, and swarms with vermin. Their persons and features are weak and unseemly, and their complexion is very dark. Some of them hire themselves as labouring servants to the farmers, and, like those of other casts, receive monthly wages. Others, in crop season, watch the fields at night, to keep off the elephants and wild hogs. These receive monthly one *Fanam* and ten *Seers*, or $1\frac{1}{100}$ peck of *Ragy*. In the intervals

between crops, they work as day labourers, or go into the woods, and collect the roots of wild *Yams (Dioscoreas)*; part of which they eat, and part exchange with the farmers for grain. Their manner of driving away the elephant is by running against him with a burning torch made of *Bamboos*. The animal sometimes turns, and waits till the *Curubaru* comes close up; but these poor people, taught by experience, push boldly on, and dash their torches against the elephant's head, who never fails to take immediate flight. Should their courage fail, and should they attempt to run away, the elephant would immediately pursue, and put them to death. The *Curubaru* have no means of killing so large an animal, and, on meeting with one in the day-time, are as much alarmed as any other of the inhabitants. During the *Sultan's* reign they caught a few in pit-falls. The wild hogs are driven out of the fields by slings; but they are too fierce and strong for the *Curubaru* to kill. These poor people frequently suffer from tigers, against which their wretched huts are a poor defence; and, when this wild beast is urged by hunger, he is regardless of their burning torches. These *Curubaru* have dogs, with which they catch deer, antelopes, and hares; and they have the art of taking in snares peacocks, and other esculent birds. They have no hereditary chiefs, but assemble occasionally to settle the business of their cast. They confine their marriages to their own tribe. The *Gauda*, or chief man of the village, presides at this ceremony, which consists of a feast. During this the bridegroom espouses his mistress, by tying a string of beads round her neck. The men are allowed to take several wives; and both girls after the age of puberty, and widows, are permitted to marry. In case of adultery, the husband flogs his wife severely, and, if he be able, beats her paramour. If he be not able, he applies to the *Gauda*, who does it for him. The adulteress has then her choice of following either of the men as her husband. They can eat every thing except beef; and have no objection to the animal having died a natural death. They will eat victuals dressed by any of the farmers,

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but would not touch any of my provisions. They do not drink spirituous liquors. None of them take the vow of *Dáséri*, nor attempt to read. Some of them burn, and others bury the dead. They believe that good men, after death, will become benevolent *Dévas*, and bad men destructive *Dévas*. A good man, according to them, is he who labours properly at his business, and who is kind to his family. The whole are of such known honesty, that on all occasions they are entrusted with provisions by the farmers; who are persuaded, that the *Curubaru* would rather starve, than take one grain of what was given to them in charge. They have no *Guru*, nor does the *Panchánga*, or any other kind of priest, attend any of their ceremonies. The spirits of the dead are believed to appear in dreams to their old people, and to direct them to make offerings of fruits to a female deity named *Bettada Chicama;* that is, the little mother of the hill. Unless these offerings are made, this goddess occasions sickness; but she is never supposed to do her votaries any good. She is not, however, appeased by bloody sacrifices. There is a temple dedicated to her near *Nunjinagodu;* but there is no occasion for the offering being made at that place.

Betta, or Malaya Curubaru.

There is also in this neighbourhood another rude tribe of *Curubaru*, called *Betta*, or *Malaya*, both words signifying mountain; the one in the *Karnáta*, and the other in the *Tamul* language. Their dialect is a mixture of these two languages, with a few words that are considered as peculiar, probably from their having become obsolete among their more refined neighbours. They are not so wretched nor ill looking as the *Cad' Curubaru*, but are of diminutive stature. They live in poor huts near the villages, and the chief employment of the men is the cutting of timber, and making of baskets. With a sharp stick they also dig up spots of ground in the skirts of the forest, and sow them with *Ragy*. A family in this manner will sow nine *Seers* of that grain. The men watch at night the fields of the farmers; but are not so dexterous at this as the *Cad' Curubaru* are. They neither take game, nor collect wild *Yams*. The women

hire themselves to labour for the farmers. The *Betta Curubaru* have an hereditary chief called *Ijyamána*, who lives at *Priya-pattana*. With the assistance of a council of three or four persons, he settles disputes, and punishes all transgressions against the rules of cast. He can levy small fines, and can expel from the cast any woman that cohabits with a strange man. In this tribe, the concubines, or *Cutigas*, are women that prefer another man to their husband, or widows who do not wish to relinquish carnal enjoyment. Their children are not considered as illegitimate. If a man takes away another person's wife, to keep her as a *Cutiga*, he must pay one or two *Fanams* as a fine to the *Ijyamána*. Girls are not considered as marriageable until after the age of puberty, a custom that by the higher orders is considered as a beastly depravity. The men may take several wives, but never marry a woman of the same family with themselves in the male line. The *Betta Curubaru* never intoxicate themselves; but are permitted to eat every kind of animal food except beef, and they have no objection to carrion. They never take the vow of *Dáséri*, and none of them can read. Some of them burn, and others bury the dead. They understand nothing of a future state. The god of the cast is *Ejuruppa*, who seems to be the same with *Hanumanta*, the servant of *Ráma;* but they never pray to this last mentioned deity, although they sometimes address *Siva*. To the god of their cast they offer fruit, and a little money: they never sacrifice to the *Saktis*. Their *Guru*, they say, is of the cast *Wotimeru*, and from their description would appear to be of those people called *Satánanas*. He gives them holy water, and consecrated victuals, and receives their charity. At their marriages, he reads somewhat in a language which they do not understand.

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19th *September*.—I went four cosses to *Hegodu Dévana Cotay;* that is, the *Fortress of the mighty Déva*. The two first cosses of the way led through a forest, as thick as that which is to the south-west of *Hejuru*, and is covered with longer grass. The road was a very narrow path. The trees are small, and stunted, probably from the

Sept. 19. Appearance of the country towards *Hegodu Dévana Cotay*.

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poorness of the soil, which is in general very light. The elephants are said to be very numerous here also, but I did not see any. The former sites of several villages could readily be discovered. Farther on, the whole country has evidently been once under cultivation; but the greater part has been long waste, and is now covered with trees. Here a sudden change takes place. In the rich land to the westward, there are very few prickly trees or bushes; but here, and all towards the east, the most common are *Mimosas* and *Rhamni*. On the way I passed two villages which had some cultivation round them. The crops were mostly of the leguminous kind, and seemed to be very thriving.

History of *Hegodu Dévana Cotay.*

The tradition concerning *Hegodu Dévana Cotay* is as follows. About four hundred years ago *Hegodu Déva*, a brother of the *Ráyalu* of *Anagundi*, having had a dispute with the king, came and settled here, the whole country being then one forest. He first built a fort at a place called *Hegodu-pura*, about half a coss west from hence. One day, as he was coursing, the hare turned on his dogs, and pursued them to this spot, which the prince therefore knew to be *male ground*, and a proper place for the foundation of a city. At this place he accordingly took up his residence, and fortified it with seven ditches. He brought inhabitants to cultivate the country which now forms this district, and was at the head of all the neighbouring *Polygars*. His son, *Singuppa Wodear*, was conquered by *Betta Chama Rája Wodear*, of *Mysore*; and the present fort was built about 130 years ago by *Chica Déva*, one of that rebellious subject's descendants. He made a *Cundaia*, or valuation of the country; but I do not find that any person is possessed of a copy of the whole. The *Shanaboga* or accomptant of each village has a copy of its valuation, which, from want of a check, is very liable to be corrupted. The dominions of *Hegodu Déva* extended from the city four cosses to the east, six cosses to the south, four cosses to the west, and three cosses to the north. Formerly the whole country was cultivated; but now three cosses toward the west, and two

cosses toward the south are entirely desolate; and in the other two directions much land is waste. Near the place, indeed, I can no where see much cultivation. These devastations have been chiefly committed during the troubles with the *Coorg Rájas*, especially those which happened in *Tippoo's* reign. The town itself first suffered considerably in the *Marattah* invasion during *Hyder's* government. Previous to that, it contained a thousand houses; but they are now reduced to eighty. CHAPTER VIII. Sept. 19.

State of Bynadu, or Wynaad.

The wretched inhabitants of this country have also had frequent trouble from the *Bynadu Rája*, who is besides possessed of a country called *Cotay-huttay* in *Malayálam*. This last territory is below the *Ghats*, and is a part of what we call *Malabar;* which derives its name from its hilly nature. *Bynadu* signifies the open country; and, although situated on the summits of the *Ghats*, and in many places over-run with forests, yet it is infinitely more accessible than the other territories of this chief. *Cærulu Verma*, the present *Rája*, is a younger branch of the family; but retains his country in absolute sovereignty, denying the authority of the Company, of the head of his family, and of all other persons. In the reign of *Tippoo*, this active chief assembled some of his *Nairs*, and regained possession of the territories which the former reigning prince had, on *Hyder's* invasion, deserted. The *Rája*, who had so basely submitted to the Mussulman conqueror, succeeded afterwards to the territory of a relation, and now enjoys his share of the allowance which is made to the *Rájas* of *Malabar* by the Company, to whose authority he quietly submits. The *Bynadu Rája* has at present sent the *Conga Nair*, one of his officers, into the *Mysore* dominions, to cut sandal-wood, and to plunder the villages. In this vicinity there are now a hundred cavalry, and one hundred and fifty regular infantry, besides *Candashara*, belonging to the *Mysore Rája:* but these dare not face the *Conga Nair*, nor venture to repress his insolence. His master lays claim to all the country west from *Nunjinagodu*. Had I deferred visiting the forests till I came here, I should have been

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completely disappointed; although the best information that I could procure at *Seringapatam* pointed this out as the place most proper for the purpose.

Sandal-wood *Santalum album.*

Hegodu Dévana Cotay is one of the most considerable districts for the produce of sandal-wood; and I found there a Portuguese agent of the Commercial Resident at *Mangalore*, who was employed to collect a purchase of this article that had been made by the government of Bombay from the *Dewan* of *Mysore*. Two thousand *Candies*, each weighing 520 lb. were to have been delivered at a stipulated period; but this has not been fulfilled. Orders, indeed, have long ago been issued to the *Amildars* for accomplishing it; but a prompt execution of any such commands is by no means usual in an Indian government. The account which this agent gave is as follows: the *Amildars*, having no legal profit for this extraordinary trouble, endeavour to squeeze something out of the workmen. They charge the wages given to these poor people at $\frac{1}{4}$ of a *Fanam* a day, which is the usual rate of the country; and, in place of this, give them only half a *Seer* of *Ragy*. The labourers, being thus forced to work at a low allowance, throw in his way every obstacle in their power. It is the lowest and most ignorant of the peasantry, in place of tradesmen, that have been selected. A sufficient number having been seized, they are ordered each to bring a billet of sandal to the *Cutchery*, or office of the *Amildar*. Every man immediately seizes on the tree nearest him; cuts it down, whether it be ripe or not; neglects the part nearest the root, as being more troublesome to get at, and drags the tree to the appointed place, after having taken off the bark to render it lighter. Before the office the logs lie exposed to sun, wind, and rain, until other peasants, as ignorant as the former, can be pressed to cut off the white wood with their miserable hatchets. These cut the billets of all lengths, according as every man thinks it will be most convenient for him to clean them: by this means, being less fit for stowage, they are not so saleable. The whole is then hurried away to the place where

the agent is to receive his purchase; and when it comes there, the *Amildar* is astonished to find, that one half of what he had calculated upon is rejected, as being small, foul, or rent. The people are very docile; and the agent, so far as he has been able, has had the trees brought to him, just as they were cut, and freed from their branches and bark; and he has superintended the cutting them into billets of a convenient size, and the cleaning them properly from white wood. Owing to a want of time, he has been obliged to have them dried in the sun; and I observe, that in consequence of this a great many of the billets are rent in all directions. He suspects that the *Amildars* throw delays in his way, in order to force him to weigh the sandal while it is green. He thinks that, in order to instruct the villagers in the manner of cleaning the wood, it would be of advantage to send a carpenter, with proper tools, to each district. CHAPTER VIII. Sept. 19.

The agent says, that the sandal-wood of *Priya-pattana* and *Maha-Ráyana-Durga*, although smaller, is of a much better quality than that of *Naggara*, which is inferior to that even of the districts south from *Priya-pattana*. None, or at least a very inconsiderable quantity, grows in *Coorg*, and *Bynadu;* but in *Tippoo's* reign the *Tellicherry* market was chiefly supplied by the *Rájas* of these two countries, to whom it was smuggled by the inhabitants of *Mysore;* for the most violent orders had been issued prohibiting the sale. The people of *Coorg* understand the preparation of the sandal-wood much better than those of *Mysore*. The proper manner, according to the agent, is as follows: the trees ought to be felled in the wane of the moon; the bark should be taken off immediately, and the trees cut into billets two feet long. These should be then buried in a piece of dry ground for two months, during which time the white ants will eat up all the outer wood, without touching the heart, which is the sandal. The billets ought then to be taken up and smoothed, and according to their size sorted into three kinds. The deeper the colour, the higher is the perfume; and hence the

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merchants sometimes divide sandal into red, yellow, and white; but these are all different shades of the same colour, and do not arise from any difference in the species of the tree. The nearer the root, in general, the higher is the perfume; and care should be taken, by removing the earth, to cut as low as possible. The billet nearest the root, when this has been done, is commonly called root-sandal, and is of a superior quality. In smoothing the billets, chips of the sandal are of course cut off, as are also fragments in squaring their ends. These chips and fragments, with the smallest assortment of billets, answer best for the Arabian market; and from them the essential oil is distilled. The largest billets are sent to China; and the middle-sized billets are used in India. The sandal, when thus prepared and sorted, for at least three or four months before it is sold, ought to be shut up from the sun and wind in close warehouses; but the longer it is kept, with such precautions, the better; its weight diminishing more than its smell. Prepared in this way, it rarely either splits or warps, both of which accidents render it unfit for many of the purposes to which it is applied. If it be not buried in the ground, the entire trees ought to be brought into a shed at the warehouse, and there cut into proper billets, cleared of white wood, smoothed, and immediately shut up till thoroughly dry. The *Vir' Rája's* people, although they cure the sandal properly, have no notion of sorting it. The *Rája* is the principal dealer in this article, and insists on the merchants taking it good and bad, as it comes to hand, at the same price. He, no doubt, thus gets quit of the whole refuse; but, I believe, most merchants of experience would prefer selling their wares properly sorted.

The officers of government say, that the sandal tree seldom or never grows in the lofty forests. It delights in the skirts of the open country, where small intervals are left between the fields, or on the banks of mountain torrents. It prefers a light stony soil, and such only as grows there is of any value. In the soil which this tree requires there is, however, something peculiar; as it rises

up in one place copiously, and not at all in another neighbouring spot, although there be no apparent difference in the situation or soil. It springs partly from seed, scattered by the birds that eat its berries; and partly from the roots of the trees, that have formerly been cut; and requires about twenty years to come to perfection. No pains, that I could discover, are taken to preserve the young plants from cattle; so that they always rise in a very straggling manner. If formely any systematic management was observed, it has of late been entirely neglected. To prevent any person from cutting sandal without permission from government, laws have long existed: but these never were enforced with rigour by *Tippoo.* They are excessively severe, and prevent the peasantry from ever stealing the tree. It is only *Rájas*, and men above the law, that venture on this kind of theft. The present plan adopted by the *Dewan* seems to me to be the worst that could have been chosen. The woods are as much destroyed as if they had been sold to a renter; and, I am assured, will produce no more for at least twelve years; while no pains have been taken to make the most of what has been cut. To the conduct of this minister, however, no blame is, on this account, to be attached. He had sold the wood to the Company; and the misconduct of the officer, whom he had entrusted to cut it down, rendered it necessary for him to adopt the means by which he would be most likely enabled to fulfil his engagements, without attending to any other circumstance of less importance.

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Two means occur to me, as likely to ensure a considerable and regular income from sandal-wood. One means would be, to grant long leases to an individual, who would of course take every care of the trees, and employ every means proper to render what was cut fit for the market. The rent would be fixed at so much a year; and restrictive clauses, to prevent the renter from ruining the woods toward the end of his lease, would be necessary. The difficulty in exacting the performance of these restrictive clauses would make

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me prefer the other plan; which would be, to put the sandal-wood under the management of an agent, on a footing similar to the salt-agents of Bengal. He would preserve the trees, when young, by destroying all the other plants that might choak them, and by watching against thefts, or the encroachments of farmers. He would yearly cut the trees that were ripe, and no others. He would take care that the billets were properly prepared and cured; and he would bring the whole to public sale at proper times and places. His pay ought to be a commission on the neat proceeds. For some years, it is probable, the quantity procured would not overstock the market; but with care the quantity raised would, no doubt, so lower the price, as to diminish the profit very much. In that event, the sandal of the least profitable districts might be entirely destroyed; and in the most convenient and profitable situation, a sufficient quantity would be raised. As it is a mere article of luxury, or rather of ostentation, there can be no doubt of the propriety of making it entirely subservient to the purpose of raising a revenue; and the whole sandal of India is now in the hands of the Honourable Company, and of the *Rája* of *Mysore;* between whom the necessary arrangements might be readily completed.

Sept. 20.

20th *September*.—I went three cosses to *Humpa-pura*. The country has formerly been almost entirely cultivated; but at present about three fourths of it are waste. The sandal-wood is very common here, growing in intervals between the corn fields, and by the sides of torrents. The *Parputty*, or revenue officer, of *Humpa-pura* had the impudence to tell me, that although the farmers were rather poor, owing to the depredations of the camp followers during the late war, yet there was abundance of stock; and that every field capable of it was actually cultivated. The same officer said, that cattle were never permitted to go near the young sandal-wood trees. Now the man must have known, that from the tent in which we were sitting, I had ocular demonstration of both affirmations being false; and what could induce him to make them I could not discover.

Want of veracity.

Among the natives, however, similar departures from the truth are common. CHAPTER VIII.

Purnea has lately repaired a canal which comes from the dam at *Hanagodu*, and which in the rainy season conveys the superfluous water into a reservoir, where it is preserved for cultivating a considerable portion of rice-land in the dry weather. By similar means much water, that is now lost from the *Cavery*, might be preserved. Sept. 20. Irrigation.

We have now again got into a dry soil, with short herbage intermixed with bushes of the *Cassia auriculata*: but the fields have a verdure unknown to the eastward, and *Car' Ragy* is the common crop. Soil.

All the high grounds that I have seen south from the *Cavery*, as well as those in many places north from that river, have evidently been once fenced with quickset hedges. Some of these at this place are very fine; and the natives, being sensible of the advantage of shelter in preserving a moisture in their fields, have allowed the *Tirucalli* to grow twenty feet high. When from its height it has become too open at the roots, they plant in the openings the *Euphorbium antiquorum*, which grows well under the shade of the other; and both united make a good and a very beautiful fence. The hedges of the country in general, even where they are kept up as fences, are in a very slovenly condition, and are ruined by being overgrown with the *Convolvulus*, and other rank climbing plants. Fences.

Humpa-pura is a miserable open village. A little east from it is erected a stone, containing some small figures in bas-relief, which are much defaced. Concerning this the tradition is as follows: *Canterua, Ráya* of *Mysore*, having invaded *Coorg* with a large army, was entirely defeated, and pursued this length by the *Vir' Ráya*. In the flight there perished three hundred and sixty of the *Mysore* nobles, each of whom had the privilege of using a palanquin. The conqueror having bestowed great *Dharma*, that is to say, having thrown away much money on religious mendicants, erected this Monument of a great victory.

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stone as a monument of his victory, and to mark the new boundary of his dominions. It was but for a short time, however, that he retained these acquisitions.

Yesterday afternoon I was very unwell; and another day's stay in the woods would probably have given me a serious indisposition.

Sept. 21.

21st *September*.—I remained at *Humpa-pura*, to obtain an account of the iron mines in that neighbourhood.

Strata at *Humpa-pura*. Pot-stone.

The *strata* at *Humpa-pura* are vertical, and run nearly north and south. Many of them consist of pot-stone of a bad quality. These are of various breadths.

The goddess *Chicama*.

South from *Humpa-pura* is a cluster of high hills, named *Chica Deva Betta*, or the hill of the little spirit. It is sacred to *Chicama*, the deity of the *Cad' Curubaru*, lately mentioned. Over the elephant she has peculiar authority; and, before a hunt of that animal is undertaken, she is propitiated by a sacrifice.

Iron mines.

On the north side of *Chica Deva Betta* are three low hills, which produce iron ore. *Mota Betta* is situated about three miles E. S. E. from *Humpa-pura*, immediately below the junction of the river *Nuga* with the *Kapini*, and to the right of both. *Culia Betta* is the most considerable mine, and is situated between the two rivers, being distant from *Mota Betta* one coss and a half. West from thence about half a coss, is *Hitena Betta*, which is on the left of the *Kapini*. I could only examine *Mota Betta*, without occasioning a delay of several days in my journey; which I did not think adviseable, as I was told that the ore in all the three places is nearly the same; and this is confirmed by the hills lying nearly in the direction of the *strata* at *Mota Betta*.

Description of *Mota Betta*, and its mines.

Mota Betta is a hill of no considerable height, about a mile in length, and extending from north to south. It is wrought at the south end only; but no trial has been made to ascertain how far the mine extends. The *strata* that are in view run from about north-west to south-east, or rather more toward the east and west; but I judge merely from the sun. They point directly toward the high

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peak called *Bettada-pura;* while those on the opposite side of the *Kapini* run nearly north and south. The *strata* dip toward the north at an angle of about 30 degrees. They consist of schistose plates; and, owing to their being penetrated by fissures at right angles to the *strata,* they break with a smooth surface into angular fragments. The internal structure of the plates is foliated, and these leaves being of different appearances, and sometimes straight, sometimes undulated, would seem to show that they have been deposited from water at different times. The *strata* are from one to three feet in thickness, and consist of granular quartz more or less impregnated with iron ore, which is of the same nature with the common iron-sand of the country. In most of the *strata* the quartz predominates; and by the natives these are considered as useless. In others, although having nearly the same external appearance, the iron is more abundant, and these are the ore. From these last, ochres of various colours exude, by which they are readily distinguished from the barren *strata.* In the rainy season, the workmen content themselves with collecting the fragments of ore which the water brings down from the hill. These are like the black sand, but larger and more angular. From the earth with which they are mixed they are separated by being washed in long wooden troughs, made of hollow trees. In the dry season, the workmen are forced to have recourse to the *strata;* but never penetrate deeper than the surface. Before they begin to work upon any spot, they cover it with a coat of earth for a year; which seems to accelerate the decay, and to render the ore brittle. After it has been dug up with pick-axes, the ore is broken into small pieces, and the iron is separated from the stony matter by washing.

Expense and profits of working the iron ore.

The smelting is said to be carried on in a manner similar to that used in other parts of the country. The iron, as it comes from the smelting-furnace, is sold to the farmers; and the common forges of the blacksmiths are sufficient to work it up into the implements of agriculture. The rent paid to government is in iron, and this

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must be formed into wedges at a forge. *Hyder* made an allowance for the expense of doing this, which amounts to a *Fanam* on the *Maund;* but his son stopped this allowance, which has not been restored. The rent paid for each furnace is 30 *Maunds* of 50 *Seers*, or about 300 pieces, or 910 lb. of wrought iron. For every ten pieces the owners pay, to the people who forge it, one *Fanam*, or in all 30 *Fanams*, worth 40 pieces of crude iron. The whole rent then is 340 pieces, or 255 *Fanams*. This and all other advances are made by the *Pyragara*, or superintendant, who pays all the workmen by wages. If we allow the furnace to work 320 days in the year, he pays as follows:

	Fanams.
To rent - - - - - -	255
To ten makers of charcoal, at $\frac{1}{5}$ *Fanam* daily -	640
To four miners, at ditto - - -	240
To four washers of the ore, at ditto - -	240
To two principal bellows-men, at $\frac{1}{3}$ *Fanam* daily -	213$\frac{1}{3}$
To two inferior ditto, at $\frac{1}{4}$ *Fanam* daily - -	160
Total *Fanams*	1748$\frac{1}{3}$

	Fanams.
These melt four times a day, and at each time get three *Fanams* worth of iron, in all - - -	3840
Deduct expenses - - - -	1748$\frac{1}{3}$
The profit will be - - - -	2101$\frac{2}{3}$

From this, however, must be deducted the expense of bellows and other implements, with sacrifices, presents to mendicants, and other similar charges. Each melting is cut into four bars; and from eight to twelve, or on an average ten, of these make a *Maund* of forged iron. Its prime cost is therefore 7$\frac{1}{2}$ *Fanams*, with 1 *Fanam* to the workmen who forge it; in all, 8$\frac{1}{2}$ *Fanams* for a *Maund* of 50 *Sultany Seers*, or about 21*s.* a hundred-weight.

Beautiful rock.

In the fork between the *Nuga* and *Kapini* rivers, is a *stratum* of

a similar disposition to those of the mine. It consists of very shining black foliated hornblende, or perhaps basaltine, dotted with white felspar. CHAPTER VIII. Sept. 21.

The pillars of a temple of *Bhairawa Dévaru*, at the same place, are of very fine gneiss, like some of the best at *Mail-cotay*. The priest could not inform me from whence they had been brought. Gneiss.

Bhairawa Dévaru is the god of the *Curubas*, and is a malevolent male spirit. His temple is built exactly like the smaller temples of the gods of the *Bráhmans*, and without spires, or high ornaments. Its roof, like those of the temples of *Iswara* (also a destructive spirit), is ornamented with images of the bull. The *Pujári*, or priest, is a *Hal Curubaru*, who can neither read nor write. *Bhairawa Dévaru*, the deity of the *Curubaru*.

The *Kapini* river, at *Humpa-pura*, is about sixty yards wide, and at all seasons contains running water. Its channel is sandy, and considerably below the level of the country; which circumstances have prevented the natives from making dams. It takes its rise from a hill named *Banasura*, in the *Bynadu*. At this season the river is no where fordable. I crossed it on *Bamboo* floats, which with ease transport horses and palanquins, and which are a much better conveyance than the baskets, covered with leather, that are the usual ferry-boats in all parts of the peninsula. *Kapini* river. Ferries.

The *Nuga* river is smaller and more rapid and rocky than the *Kapini*. It also rises in the *Bynadu*. Formerly there were two dams on it; but the fields which they watered have for twenty years been deserted. By the disturbances in the country the number of the people had then been so much diminished, that they were no longer able to resist the encroachments of the elephants. This year the *Amildar* of *Hegodu Dévana Cotay* has sent a party of armed men to protect the place, and some farmers have returned to their former abodes. The country, watered by these rivers coming from the western *Ghats*, is naturally by far the finest in *Mysore*, and would equal in beauty any in the world, were it decently cultivated; but ruin and misery every where stare the traveller in the face. *Nuga* river.

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Sept. 21. Ignorance and want of veracity.

I have no where met with the people so ignorant, and such gross liars, as in this vicinity. Except the accomptant, a *Bráhman*, I did not converse with one man who did not prevaricate; and very few of them would give an answer to the most simple question; while most of them pretended ignorance on all occasions and subjects. The accomptant's answers were rational, and never contradictory; and it was owing to him that I was able to procure any account of the iron manufacture. During my stay at *Humpa-pura* I could procure none that was in the least satisfactory; but, ashamed of his countrymen, he persuaded two of the workmen to follow me to the next stage, and to give me the account that I have inserted.

Sept. 22. Appearance of the country.

22d *September*.—In the morning I went three cosses to *Maru-Hully*. The road leads parallel to the valley which the *Kapini* waters, and runs along its north side at a considerable height above the river, and also at some distance from its banks. The valley is naturally beautiful. So far as I could judge from looking down upon it, the whole has been once cultivated, and inclosed with quick-set hedges; and it contains an abundance of trees, though few of them are large. The hills that bound it on the north and south are covered with bushes, so as to give them an uniform verdure; and, for the matter of prospect, look as well as if clothed with the most lofty forests. Near the road there was very little cultivation; and some of the soil is too poor to be fit for the plough; but I am told, that in the bottom of the valley there is a good deal of cultivation; for the small remainder of the inhabitants choose, of course, to employ their labour on the best soil.

Quarry of *Sila*, or *Pratimá Cullu*.

By the way I turned out of the road; and in order to examine a quarry of the stone called *Sila*, or *Pratimá Cullu*, I went in among the hills on my left to a small village, named *Arsina Caray*. The first name in the *Sanskrit* language means stone; the latter appellation means image-stone, as it is used for making idols. The quarry is in a hollow, which is surrounded by low hills that are sacred to *Chicama*. Many stones have formerly been dug, and have left a

considerable cavity; but, as the quarry has not lately been wrought, much rubbish has fallen in, and entirely hides the disposition of the *strata*. The whole of the *strata* that I observed between *Maru-Hully* and *Humpa-pura*, on both sides of the quarry, run nearly north and south, and are much inclined to the plane of the horizon. These *strata* consist of a bad kind of the *Pratimá Cullu*, which crumbles into irregular masses, and is disposed alternately with those of schistose mica, intermixed with parallel layers of *pot-stone*. All these *strata* are in a state of decay. I have little doubt, but that the quarry itself is disposed in a *stratum* parallel to the others; but thicker, more compact, and less decayed. Lying round the quarry were many half-formed images. The largest that I saw was about eight feet long, three broad, and one and a half thick; but by digging deeper, larger masses might probably be procured. It is an indurated pot-stone, or rather a pot-stone intimately united with hornblende, and is capable of a fine polish. It approaches very near to the hornblende of *Hyder's* monument, but is softer.

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Arsina Caray, and the tenure by which it is held.

Arsina Caray, or the prince's reservoir, is a small village surrounded by hills, which are covered by low trees and bushes. From time immemorial it has belonged to the *Sucar* of the *Khálsa*; that is, to the master of the mint. The farmers supply, at a regulated price, whatever charcoal he may want; and if there be any balance of rent due, they pay it in money. They are subject to the jurisdiction of the *Amildar* of *Mahásura Naggara*, and hence this tenure of the mint-masters is not called a *Jaghire*.

Maru-Hully, the *Jaghire* of *Purnea*.

Maru-Hully, commonly corrupted into *Marwully*, signifies the second village; for when the dominions of the reigning family were confined to their original fee (*Polyam*), this was, next to *Mysore*, the most considerable place in their possession. It is, however, entirely exempted from the jurisdiction of the *Amildar*, having been granted by *Hyder* as a *Jaghire* to *Purnea*, who still holds it by the same tenure, and manages it by an officer called a *Parputty*. It is an open village, containing thirty houses of farmers, and ten of

CHAPTER VIII. Sept. 22. labourers, with a few shop-keepers and artificers. They are very poor, having been completely plundered by the *Lumbadies*, a kind of traders in grain, that followed General Harris.

Car' Ragy. The chief cultivation here is *Car' Ragy*, although the people allege that the rains do not begin earlier here than at *Seringapatam*; but in this, I imagine, they must be mistaken.

Shiva-bactaru, and Siv' Achâryas. Most of the cultivators in the *Mysore* district wear the *Linga.* Of these the *Siv' Achárya Woculigas* pretend to a much higher dignity than the others; and say, that only they and the *Pancham Banijigas* can be admitted to the order of priesthood. They are a tribe of pure *Karnáta* descent. They act as officers of government, as messengers, traders, farmers, and farmers servants. Disputes being settled by the *Gauda*, or chief of the village, and their *Gurus* taking cognizance of all transgressions against the rules of cast, they have no hereditary chiefs. The chief *Guru, Swamalu*, or throne *(Singhásana)*, appoints an inferior *Guru* to a certain number of families. This person is a married *Jangama*, and attends at births and marriages, and takes cognizance of all transgressions. For less important ceremonies, such as bestowing the *Linga* and *Upadésa*, any *Jangama* suffices. On all these occasions the *Jangama* reads *Mantrams* in the vulgar language. At their marriages, and when *Dhana.* he receives their *Dhana*, which is charity given in order to procure an absolution from sin, the *Panchánga*, or village astrologer, reads *Mantrams* in *Sanskrit*. The *Jangamas* cannot read the *Mantrams* which are necessary for this purpose. The *Bráhmans*, indeed, pretend that they are the only persons who have the power of taking away the sins of men; and they say, that, however willing, they cannot do it gratuitously; for the quantity of sin removed is exactly in proportion to the *Dhana*, or sum of money given. The performance of this ceremony is therefore one of the most essential duties of a *Purôhita*. The *Jangama Gurus* attend the *Siv' Achâryas* at the annual ceremony performed in honour of their deceased parents; and, besides getting provisions at their visits, and certain dues for

performing all ceremonies, they get annually a *Fanam* or two from every person who is under their authority. None of this tribe acknowledge the *Bráhmans* as their *Gurus;* and all of them wear the *Linga,* and consider *Siva* as the proper deity of their cast. They offer fruits and flowers to the *Saktis,* but never appease their wrath by bloody sacrifices. They suppose, that after death bad men are punished in a hell called *Nuraca;* and that good men go to the feet of *Iswara* on mount *Coilasa,* and there become like gods. They call a man good, who prays constantly, who confers on religious mendicants great *Dharma,* or alms, who gives much *Dhana,* and who makes tanks or reservoirs, inns, and gardens. This tribe bury the dead, and abstain entirely from animal food, and all intoxicating substances. The men practise polygamy. A man and woman of the same family in the male line cannot intermarry. In order, therefore, to prevent incest, they always marry in certain families that are known to be distinct from their own. The girls are marriageable both before and after the age of puberty. A widow cannot marry, but she may become a concubine of the kind called *Cutiga;* her children, however, in this case are considered as belonging to a bastard race, although they are still much better than outcasts. An adulteress is not always divorced; the *Guru* commonly makes up the dispute; and the cuckold, having paid a fine, takes his wife quietly back again. Sometimes, however, the man will continue obstinate; in which case the adulterer pays the fine to the *Guru,* and keeps the woman that he has seduced as a *Cutiga.* A woman that cohabits with a person of any other tribe, even with a *Bráhman* or *Jangama,* inevitably becomes an outcast.

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Quarry of *Sila.*

Near *Maru-Hully* also there is a quarry of *Sila,* or image-stone. The mass of rock is larger than that of *Arsina-Caray,* and has lately been wrought for the buildings that are now erecting at *Mysore.* Although it has been laid bare to a considerable extent, nothing stratified can be observed. The stone seemsto be of a middle nature between that of *Hyder's* monument and the *Sila* of *Arsina-Caray,*

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and to contain less hornblende than the former, but more than the latter. Large blocks may be procured, and perhaps of the whole it is the finest stone.

Alarm of the natives, from a dread of *Corvées*.

23d *September*.—In the morning I set out for *Nunjinagodu*, distant three cosses; and I intended, by the way, to visit a place from whence pot-stone is dug. After having gone half way, I discovered that the guide had deserted me; and, in order to procure another, I was forced to go back again to *Maru-Hully*. I found the quarry not a mile from that place; and was informed, that the stone-cutter who works it lives there, although I had in vain solicited the officer of government to procure me a workman of that kind to break some specimens of the image-stone. It must be observed, that I find more difficulty in acquiring a knowledge of the quarries and forests, than of any other subject of my inquiries. On the revenue of the country the natives are more communicative than I desire; and even in their accounts of the produce of their fields, the cultivators of the land adhere more to the truth than all ranks do, in answering queries relative to quarries and forests. It is evidently suspected, that my object in asking such questions is to find out materials for public works; and the natives are terrified at the thought of being again harassed with the *Corvées* to which in the reign of the *Sultan* they were cruelly subjected.

Quarry of pot-stone.

The pot-stone of *Maru-Hully* is used for making pots, dishes, and pencils. It differs from the image-stone only in containing more earth of magnesia; for it has hornblende as one of its component parts. It is readily scratched by the nail; but retains an excessive toughness; so that before it will break into fragments under the hammer, it is reduced to powder. Like those of the kindred stones that have been already described, its masses are irregularly angular. The surrounding *strata* are vertical, and run north and south.

Face of the country.

The road, by which I travelled to-day, leads partly through among the small hills that bound the vale of the *Kapini* on the north, and partly through the valley itself. Among the hills, almost all the

fields of a good soil are cultivated; but many of the poorer ones are waste: some of the land that would appear never to have been cultivated seems to have a tolerable soil; but by far the greater part can never be made to produce any thing, except a wretched pasture. In the valley, much good land is waste, much very poor land is interspersed, and the cultivation is extremely slovenly. The river winds much, and its course here is rapid. On its north side are several large temples in a ruinous condition. Near one of them is a village, which, from the comparative goodness of its houses, may be at once known to be chiefly inhabited by *Bráhmans.*

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Bridge.

At some distance from this I crossed the *Kapini* by a bridge, which is here looked upon as a prodigy of grandeur; in Europe it would be considered as a disgrace to the architect of the meanest town. The arches are about five feet span; the piers are of nearly an equal thickness, and do not present an angle to the stream. The sides of the arches have scarcely any curvature, but are composed of two planes meeting at an acute angle. The parapet is rude, and the whole is composed of an irregular mixture of brick and stone. The pavement consists of rough and irregular flags, which form a very bad road. The bridge is, however, both long and wide, and is a great convenience for foot passengers, or merchants conveying their goods on oxen.

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25th *September.*—Yesterday I had a febrile paroxysm, and at night found myself unwell. In order therefore to take medicine, I remained here another day.

Nunjinagodu, and its temple and *Bráhmans.*

Nunjinagodu signifies swallowing poison; for it is a place sacred to *Iswara*, who, on account of one of his exploits, is frequently called by this name. Originally there was a small temple ten cubits square, and of the greatest antiquity. About six or seven hundred years ago, the country was entirely covered with forests. The *Rája* then in power brought inhabitants, and enlarged the temple to 200 cubits square. From that time frequent donations were made to the *Bráhmans*; some *Rájas* giving them in charity a thousand

CHAPTER VIII. Sept. 30. has formerly been nearly all cultivated, and more than a half is now occupied. The fields are mostly inclosed, and are all high ground, or such as is fit for palm-gardens. There are some small tanks, the water of which is applied to the cultivation of sugar-cane and *betel-leaf.* The *Gauda*, or chief of the village, says, that there is a number of people sufficient to cultivate all the fields; but the want of stock prevents them from undertaking so much. They suffered greatly from the depredations of the *Lumbadies*, or traders in grain, that last year followed the besieging army; and also from the epidemic distemper which, after the fall of *Seringapatam*, raged among the cattle. During the invasion of Lord Cornwallis most of the palm-gardens were destroyed.

Waracadu. *Waracadu* is a *Hobly*, or division of *Mahásura Ashta-grám* district. It derives its name from *Wara*, wishes, and *Cadu*, to grant; from a temple in it, dedicated to *Warada Ráya*, or *Vishnu*, the granter of wishes. This temple was built about 120 years ago by *Doda Déva Ráya.* This person was a natural son of *Krishna Ráya*, the *Curtur* of *Mysore*, and held the office of *Dalawai*, or prime minister, between forty and fifty years. This village was his favourite retreat; and, besides the temple, he built a fine tank from which the inhabitants are supplied with drink. The village is not fortified, and is said to contain 150 houses; but I think that estimation grossly exaggerates their number.

Oct. 1. Appearance of the country. 1st *October.*—I went two cosses to *Taiuru*. Part of the road passes among low hills covered with bushes, and abounding with antelopes. The soil of these hills is in general poor, and full of small stones; but they are not occupied by naked rocks, like those on the north side of the *Cavery.* In some places the soil seems to be tolerable; and sufficient marks remain to show, that some of it, which is now overgrown with bushes, has formerly been cultivated. Among the hills are some level grounds that are now cultivated; and in the most extensive of these is a fortified village in a very ruinous condition. Towards the *Kapini* the soil becomes better,

and is in a state nearly similar to that of the country through which I passed yesterday. Near the river is a canal, which comes from a dam on the *Cavery* at *Madayena-hully*, three cosses below *Seringapatam*; falls into the *Kapini* at *Usocotta*, a coss above *Taiuru*; and forms the space between it and the two rivers into rice fields, which are mostly under cultivation. The *Kapini* is here a fine broad river, and its basket ferry-boats occasioned a considerable delay in transporting my baggage. The cattle were obliged to swim.

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Taiuru is a well-built mud fort, situated on the right bank of the *Kapini*, about two cosses from its junction with the *Cavery*. It contains 141 houses, with 11 in a suburb. Its *Sanskrit* name is *Materupura*, or mother-town; and its vulgar name, in the language of *Karnata*, has the same meaning. No tradition remains concerning its foundation, nor the princes who ruled it before the family of *Mysore*. It is the residence of an *Amildar*, whose district is separated from the *Mahásura Ashta-grám* by the *Kapini* river. It has no commerce; nor any manufactures, except the coarse cloth which the *Whalliaru* weave. In the two last wars, it met with no disturbance, nor did the inhabitants suffer from famine during the invasion of Lord Cornwallis. Last year more than usual of their cattle died of the distemper; but once in four or five years it generally prevails, more or less.

Distemper among the hornedcattle.

In some villages of this district, the *Gaudas*, or chiefs of villages, are hereditary; in others, the renter is called by that name. The hereditary *Gaudas* seem to be preferred both by the farmers, and by the officers of government. Being personally acquainted with all the inhabitants, their orders are more cheerfully obeyed; and having been long resident in the place, they have better credit to enable them occasionally to borrow money for making up their rent at the fixed terms of payment. The rent of the dry-field is paid by three *Kists*, or instalments, which all become due before the *Ragy* harvest. In case of failure in the payment of these instalments, the crops are seized, and sold by the *Parputty*, or accomptant

Manner of collecting the land-tax.

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of the division. This officer sells also the government's share of the crops that are divided; and these sales are made at three different periods; as, by selling the whole at once, the market would be overstocked.

Cani, or *Shaycana*.

In this country there is a class of men called *Cani*, or *Shaycana*, who are generally *Whalliaru*, and always of some low cast, and who subsist by acting as sorcerers and diviners. Some of them derive their knowledge from the stars, and are considered as men of learning, but not as inspired by the deity; others rattle an iron instrument, and sing to invoke the gods, until their voice almost fails. They then appear as if drunk, and are considered as inspired. Concerning the causes and events of the diseases of men and beasts, both kinds are consulted. The causes which they assign are, the wrath of different gods; and at the same time they tell, whether or not the god will be pacified, and allow the object of his wrath to recover, and also how this may be obtained. In this part of the country the spirits of bad men are called *Virikas*, and are believed frequently to torment the living. The diviners are supposed to be able, not only to tell what *Virika* is afflicting a family, but also to expel the evil spirit. When a *Virika* seizes on the persons of his own family, he is driven out with great difficulty, and requires a sacrifice, and many prayers; but a strange *Virika* is not so troublesome; a diviner will take a *Fanam* and a half, and immediately dismiss him. Except the *Bráhmans*, Mussulmans, and those who pretend to the rank of *Kshatri*, every cast labours under this superstition.

The *Toreas* are a kind of the cast called *Besta* that in the southern parts of *Mysore* are very numerous, and are an original tribe of *Karnata*. They neither eat nor intermarry with the *Bestas* called *Cabba*, nor with those descended from families that originally spoke the *Telinga* and *Tamul* languages. They cultivate the fields, and gardens of *Betel-leaf*, *Areca*, and kitchen herbs; and act as ferrymen, armed messengers, palanquin-bearers, burners of lime, fishermen, and porters. They are a low kind of *Súdras*, and have no

hereditary chiefs; but government appoints a renter, who collects four or five old men of the tribe, and by their advice settles all disputes; and by fines, laid on with their consent, punishes all transgressions against the rules of cast. The renter must always be a *Torea,* and he agrees to pay annually a certain sum. If the members of the cast behave themselves properly, he must pay this sum out of his own pocket; but this is seldom the case: the *Toreas* are apt to be irregular; and the fines which he levies, after paying the rent, leave in general a considerable profit, although they cannot be considered as heavy. They are as follow: for fighting, half a *Fanam,* or 4*d.*; for scolding, half a *Fanam;* for committing adultery with another man's wife, two *Fanams* and a quarter; and for having a wife that chooses to commit adultery, one *Fanam* and a half. If the husband prefer giving up his wife to her seducer, he avoids the fine, which is then paid by the guilty man: but, as the women are bought by their husbands, the men are very unwilling to part with them, especially if they be good workers. The men buy as many wives as they can; for the women are very industrious, and assist even to support their husbands. A virgin costs thirty *Fanams,* and a widow from ten to fifteen. Both of these sums are given to the women's parents or relations. A *Torea* who has connection with a woman of higher rank is flogged, but not fined. If a man of higher rank corrupts the wife of a *Torea,* and the husband should choose to part with her, he may pay a shilling to the renter and keep her. The widows, or adulteresses, that live with a second man are called *Cutigas;* but their children are perfectly legitimate. The *Toreas* are permitted to eat animal food, but ought not to drink spirituous liquors. None of them can read. They bury the dead, and believe in a future state of reward and punishment; but they assign no place for heaven or hell, nor do they pretend to know how the spirits of good men are employed. The spirits of bad men continue to do evil. Some of the *Toreas* take the vow of *Dáséri.* The deity peculiar to the cast is *Marima,* a goddess that inflicts the small-pox

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on those who offend her. The *Pújáris* in her temples are *Toreas;* and the office is hereditary; but this order of priests are not above intermarrying with the laity. Some of the *Toreas* worship *Vishnu* also, and have for their *Gurus* the hereditary chiefs of the *Sri Vaishnavam Bráhmans.* Others again worship *Siva,* and, although they do not wear the *Linga,* consider the *Jangamas* as the persons to whom they ought to give *Dharma;* but, by giving *Dhana* to the *Smartal Bráhmans,* the rich procure absolution; the poor must of course trust to the mercy of God. At marriages, and at the building of a new house, the *Pancháuga,* or village astrologer, reads *Mantrams.*

Heganigaru, or Jotyphanadas.

There is a tribe of oil-makers, who in their mill use only one ox, and who are called *Heganigaru.* They call themselves *Jotyphanadas;* and, as they are not followers of the *Bráhmans,* do not acknowledge themselves to be *Súdras.* They will neither eat nor intermarry with the oil-makers who use two oxen. They eat with the other tribes that wear the *Linga,* but do not intermarry with any of them. They are a tribe of *Karnata* extraction; and, besides their proper business of making oil, they cultivate the fields and gardens, and deal in grain and cloth. They have hereditary chiefs called *Chittigaras,* who with the advice of a council of ten settle all disputes, and punish transgressions against the rules of cast. They are not allowed to eat animal food, nor to drink spirituous liquors. The men take several wives. The women, even after the age of puberty, continue to be marriageable; but widows are not permitted to marry, nor are any concubines of the kind called *Cutigas* allowed. Whenever, therefore, a woman commits adultery, she entirely loses cast. The *Jotyphanada* are divided into four or five families, and a man cannot marry a woman of his own family. These oil-makers can keep accompts, but they never read books. They bury the dead, and believe in a future state. Heaven is at the feet of *Iswara;* but it is not known how the spirits of good men will there employ themselves; nor can these people give any description of *Naraca,* the

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residence of the spirits of wicked men. They do not believe in *Virikas*, nor do they consult the diviners abovementioned. They all wear the *Linga*, and of course *Siva* is the principal object of their worship; yet none of them occasionally pray to *Vishnu*. The men are ashamed openly to worship *Marima;* but in sickness, their women and children privately carry offerings of money and fruit to the priest of that idol. Their *Guru* is *Cari-Baswa-Uppa*, the *Nidamavudy Swamalu*, who sends his disciples to receive their contributions, to eat their victuals, and to give them holy water. These priests also attempt to take *Dhana*, and thereby excite the indignation of the *Bráhmans*, who consider themselves as the only persons sufficiently in favour with God to be able to procure an absolution from sin. The oil-makers seem to be sometimes of the same way of thinking, and give *Dhana* to the village astrologer, or to some *Vaidika Bráhman;* and in proportion to the sum which they bestow, they expect a remission of sin. These *Bráhmans*, however, will not acknowledge that they perform the proper ceremonies for the heretics. They take the money, and mutter a few words in *Sanskrit*, which content the donor. The oil-makers receive the *Linga* from the *Jangama* of their village. (Oct. 1.)

Oct. 2. Appearance of the country.

2d *October*.—I went five *Sultany* cosses to *Malingy*. From *Taiuru* to *Narasingha-pura* is three cosses. Near both places the country is very beautiful, and well cultivated. Every field is enclosed with quick-set hedges, the whole being high ground without rice-land. In the middle between these two places, the soil is poor; but formerly it has been all cultivated, and would produce good crops of *Huruli* and *Shamay*. The present stock is only adequate to cultivate the richer grounds near the villages, and the greater part of the country is waste.

Narasingha-pura.

Narasingha-pura contains about two hundred houses; and, many of its inhabitants being *Bráhmans*, it is better built than usual; it has two considerable temples, and stands on the bank of the *Cavery*,

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immediately below the junction of the *Kapini*, which is six *Sultany* cosses from *Seringapatam*.

Oct. 2.

Appearance of the country.

About a mile below *Narasingha-pura* is a small village, named *Nilasogy*; and about two miles from *Malingy* a small rivulet enters the *Cavery*, after having passed the town of *Moguru*, from whence it derives its name. Between *Nilasogy* and the *Moguru* rivulet the road passes through one of the finest plains that I have ever seen. It consists of a rich black mould fit for the cultivation of cotton, wheat, *Carlay*, and *Womum;* but at present it is almost entirely waste. The people say, that they have never recovered from the devastation which was committed in the old *Marattah* invasions, especially in one that happened about forty years ago. In the last war also they suffered considerably from the allied armies. East from the *Moguru* rivulet the country is rather higher, and the soil is somewhat sandy, but still very good. Some part of the black mould contains calcarious nodules, and by the natives is then called *Carulu*.

Cultivation of rich black soil.

The principal crop in this fine country is cotton, which here is never raised in soil that contains calcarious nodules. The black soil that is free from lime is divided into three qualities. The first gives annually two crops, one of *Jola (Holcus sorghum)*, and one of cotton; the two inferior qualities produce cotton only. As, however, next to cotton, *Jola* is the most considerable crop, and is never sown but on black soil of the first quality, it must be evident, that the two poorer soils form but a small part of the whole.

An old measurement.

In this part of the country a land measure was formerly in use; and in the revenue accompts the fields are all stated to contain a certain extent. According to this measurement, $4\frac{3}{4}$ cubits make an *Alitycolu*, or measuring-rod; and 60 rods square are a *Nurmunnu*, *Nurguny*, or *Nurcumba*. Wherever a foolish prince, under pretence of his arm being long, has not established a royal cubit longer than the natural, eighteen inches may be received as a general

standard. Taking the cubit at this length, the *Nurcumba* will be $4\frac{144}{1000}$ acres. On measuring a field said to contain one *Nurcumba*, I found it to be $4\frac{142}{1000}$ acres, which comes so near as to establish the accuracy of the old measurement.

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In this part of the country accompts are kept in an imaginary money, called *Gytty Varaha*, which contains twelve *Canter' Ráya Fanams*. The weight used by the farmers, in selling cotton, is as follows.

5 *Dudus*=	1 *Polam*=lb.	0,1264 decimal parts.
60 *Polams*=	1 *Cuttu* =	7,5835.
50 *Polams*=	1 *Tucu* =	6,3195.

The *Colaga* of grain here contains only $4\frac{1}{2}$ *Seers*, and the *Candaca* is nearly $3\frac{131}{1000}$ bushels.

So much having been premised, I proceed to state the account given by the farmers of the cultivation in this neighbourhood.

Jola, or *Holcus sorghum*.

The best black soil produces annually two crops, the first of *Jola*, the second of cotton. In the month following the vernal equinox, after having manured the field with dung, plough twice. After the first good rain that happens in the two following months, sow the *Jola* seed three *Colagas* on a *Nurcumba*, or 0,111 decimal parts of a bushel on an acre. The seed is sometimes sown broad-cast, and ploughed in; or sometimes dropped in the furrow after the plough. On the 12th, 20th, and 28th days, superfluous plants must be destroyed by the hoe drawn by oxen; but if the rains are slight these hoeings must be somewhat later. In the intervals the weeds must be pulled out by the hand. In three months the *Jola* is ripe, and in a good crop produces 1800 *Seers* from a *Nurcumba*, or nearly twelve bushels from an acre.

Cotton.

In the month which immediately precedes, or in that which follows, the autumnal equinox, whenever the *Jola* has been cut down, plough the field, and hoe it twice with the *Cuntay*. The field is then dunged, and after the first rain is again ploughed. The cotton seed is then put in drills, distant from each other one cubit.

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A furrow is drawn with a plough; at every three or four inches distance a seed is dropt into it, and is covered by another furrow. Then, to smooth the field, a harrow of thorny bushes is dragged over it. The hoe called *Cuntay* is drawn by oxen between the drills once every eight days until the cotton is ripe, which happens in the course of the two months immediately following the vernal equinox. At the end of the first month the earth is thrown up by the plough, in ridges, toward the drills of cotton. The moment the cotton has been gathered, the field is again ploughed for *Jola*. A *Nurcumba* of land requires between seven and eight *Seers* of seed, and in a good crop produces 150 *Cuttus* of cotton, worth, when cheap, 10 *Varahas*, or 120 *Fanams*; and, when dear, 15 *Varahas*, or 180 *Fanams*. At this rate, a good crop will be about 271 lb. an acre; which, of course, selling low, will be worth 1*l.* 15*s.* 8$\frac{1}{4}$*d.* A poor crop is 60 *Cuttus* from a *Nurcumba*; which, selling dear, is worth 72 *Fanams*, being at the rate of 108$\frac{1}{2}$ lb. from an acre, worth 10*s.* 8$\frac{1}{2}$*d.*

On the two inferior soils, that do not produce a crop of *Jola*, the cotton yields from 48 to 72 *Fanams* a *Nurcumba*, or from 7*s.* 1$\frac{1}{2}$*d.* to 10*s.* 8$\frac{1}{2}$*d.* an acre. In the two months following the vernal equinox this soil is hoed with the *Col Kudali*. It is then dunged and ploughed, and afterwards hoed with the *Cuntay*. At the seed season the cotton is sown, and afterwards managed exactly as in the first quality of soil. The quality of the cotton raised on the two poorer kinds of soil is preferable to that which is raised on the best. The whole is sold at weekly markets in *Ganiganuru*, *Singanaluru*, *Colapura*, *Talacadu*, *Haymigay*, *Molura*, *Agara*, *Narasingha-pura*, *Taiuru*, *Coleagala*, and other places on this side of the *Cavery*. It is all wrought up into coarse cloths, for country use, by the casts called *Whalliaru*, *Dévangas*, and *Tricoluro Dasas*, who reside in the neighbourhood. None is sent to *Bangalore*, *Saliem*, or the other manufacturing towns; but were the whole country cultivated, a great supply of cotton might be procured.

Next to *Jola*, *Navony* is the most considerable crop. It thrives best on the richest black soil; but it is raised also on that which contains lime, and on other inferior land. In the two months which follow the vernal equinox the field is dunged, and is then ploughed from two to four times. In the two following months, the seed is sown broad-cast, and covered with the plough. On the 15th day the hoe drawn by oxen is used. On the 30th the weeds are removed with the *Calay Cudugulu* (Plate II. Figure 2.). In four months it ripens. A *Nurcumba* of land sows six *Seers*, and in a good crop produces 900, and in a bad one 540 *Seers*. An acre, therefore, sows only 0,05 bushels; in a good crop it produces $7\frac{446}{1000}$ bushels, and in a bad one $4\frac{467}{1000}$ bushels. The *Navony* does not exhaust the soil.

Oct. 2. *Navony*, or *Panicum italicum*.

The next most considerable crop here is *Carlay*, which so exhausts the soil of even the richest fields, that it is seldom taken from the same ground oftener than once in seven years. It is generally sown after *Jola* in place of cotton, and must be followed by wheat, *Wull' Ellu*, or *Ragy*. The two former may be followed by cotton, the *Ragy* cannot. In the third year, when *Ragy* has been used, the field is sown with *Navony* or *Jola*, succeeded as usual by cotton. Immediately after the *Jola* has been cut, which is about the autumnal equinox, the field is ploughed once, then dunged, and then ploughed three times, all in the course of a month. In the beginning of the second month after the autumnal equinox, the *Carlay* is sown in drills like the cotton; but the drills are only half a cubit distant. Between the drills, on the 15th day, the hoe drawn by oxen is used. On the 30th, the weeds are removed by the *Calay Cudugulu*. If the soil be rather hard, about the 33d day the hoe drawn by oxen must be again used. In four months the *Carlay* ripens. Its produce, from the same extent of ground, is the same with that of *Navony*; but a *Nurcumba* requires 45 *Seers* of seed, or an acre $1\frac{488}{1000}$ peck. *Carlay* is sometimes sown after a fallow; in which case the ground is prepared in a similar manner as for cotton

Carlay, or *Cicer arietinum*.

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in the two poorer soils. The produce in this case from a *Nurcumba* in a good crop is 1080 *Seers*, or of an acre almost nine bushels.

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Wull' Ellu, or *Sesamum*.

Wull' Ellu is the next most considerable crop, and is sown after *Carlay* or *Ragy*, and before cotton. In the two months following the vernal equinox, the field is dunged, and, according to the hardness of the soil, is ploughed from once to three times. In the two months which precede midsummer, the seed is sown broad-cast. On the 15th day the superfluous plants are destroyed by the hoe drawn by oxen; and on the 30th the weeds are removed by the *Calay Cudugulu*. The *Sesamum* ripens in three months and a half. A *Nurcumba* requires six *Seers* of seed, and produces 360 *Seers*. An acre, therefore, gets $1\frac{[illegible]}{1000}$ quart of seed, and produces rather less than three bushels.

Wheat. *Caru* crop.

The quantities of wheat and *Womum* raised here are nearly equal. The wheat is of the kind called *Hotay Godi*, or the *Triticum spelta;* and there are two seasons for its cultivation, the *Hainu* and *Caru*. It is sown on the best soil only, and always after a crop of *Carlay*. The *Caru* season, when the rains set in early, is always preferred, not only as the wheat is then more productive, but as in the same year it may be followed by a crop of cotton, which is not the case with the *Hainu* wheat. In the two months following the vernal equinox, the field for *Caru* wheat is dunged, ploughed two or three times, and then hoed with the *Cuntay*, which is drawn by oxen. The seed is then sown, in drills one cubit distant, by dropping it in the furrow after a plough. On the 15th, 28th, and 35th days the hoe is again used; and two or three days afterwards the weeds are removed by the *Calay Cudugulu*. This wheat ripens in three months and a half, and is immediately followed by a crop of cotton. A *Nurcumba* requires seven *Colagas* of seed, and in a good crop produces 540 *Seers*. An acre, therefore, sows a little more than one peck, and yields almost four bushels and a half. The wheat is liable to be spoiled by a disease called *Ursina Mari;* owing to which, in the course of one day, it becomes yellow, and dies.

When the rains are late in coming, the *Hainu* crop of wheat is taken after *Carlay*. Cotton cannot be taken in the same year. The manner of cultivation is the same as for the *Caru* crop, only the season is different. The ploughings are performed in the month which precedes the autumnal equinox, or in the beginning of that which follows. At the end of this month the seed is sown. The produce is about one half only of that of the *Caru* crop. CHAPTER VIII. Oct. 2. *Hainu* wheat.

The *Womum*, or *Anethum Sowa*, of Dr. Roxburgh (MSS.), is sown indifferently on all soils, nor does it injure any succeeding crop; on the contrary, it is thought rather to improve the soil. The field is prepared as for the *Hainu* crop of wheat. In the beginning of the second month after the autumnal equinox, the seed is sown broadcast, and covered by a ploughing. On the 15th day it is hoed with the *Cuntay;* and on the 30th the weeds are removed by the *Calay Cudugula*. In four months it ripens. A *Nurcumba* requires for seed $22\frac{1}{2}$ *Seers;* and 10 *Candacas*, or 900 *Seers*, are reckoned a good crop. The seed for an acre is therefore almost $1\frac{1}{2}$ gallon, and the produce almost $7\frac{1}{4}$ bushels. *Womum.*

On this side of the river, *Cabbay Bumi*, or the red soil proper for *Ragy*, is in very small quantities; so that this grain is sometimes sown on the *Eray Bumi*, or black soil; in which case the crop is poor. A *Nurcumba* requires $22\frac{1}{2}$ *Seers* of seed, which is at the rate of $1\frac{1}{2}$ gallon an acre. A *Nurcumba* of black soil in a good crop produces 1080 *Seers*, while the same extent of red soil yields 1800 *Seers*. The former is at the rate of almost ten bushels, the latter at almost fifteen bushels, an acre. Here the *Hainu Ragy* only is sown. *Ragy*, or *Cynosurus Corocanus.* { 144. 254

On red or the poorer soils *Huruli* is also sown. The seed is $31\frac{1}{4}$ *Seers* a *Nurcumbu*, or a trifle more than a peck for the acre. The produce in a good crop from a *Nurcumba* is 900 *Seers*, or from an acre seven bushels and a half. *Huruli, Dolichos biflorus*, or *Horse-grâm.*

It must be observed, that the farmers here allow a much smaller produce from the same extent of ground, than has as yet been done by those of any other place. It is true, that even on their dry-field Produce under-rated.

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they have in general two crops in the year; and it may therefore be supposed, that by this means the soil is exhausted, and produces little. This may in part account for the poverty of their crops; but I am inclined to believe, that the farmers wanted to deceive me, and alleged their lands to be less productive than they really are.

Western *ghats.*

The mountainous tract which forms the western *Ghats* is visible from *Malingy,* and rises very high above the country to the westward.

Malingy and *Talacadu,* a town covered by sand-hills.

There are two *Malingys:* this, called *Tady;* and another, which is called *Hossa,* and is situated in the Company's territory. *Tady Malingy* is a small open village; but before the *Marattah* invasion it had a fort, and was a considerable place. The last war has occasioned several ruins. Concerning its governors before it became subject to the *Rájas* of *Mysore,* no tradition is current. It forms a part of the *Talacadu* district, the chief town of which is situated on the north bank of the river, and contains about two hundred houses, and a celebrated temple dedicated to *Iswara.* Between it and the present channel of the river were formerly situated a large fort, and a great number of temples, which for many years have been overwhelmed by sand-hills. The bank at *Malingy* is steep, and the principal stream of the river comes near it; yet these sand-hills appear to be higher; and, to the traveller, coming all the way from *Narasingha-pura,* they make a very conspicuous figure. They are said to be yearly increasing in height; and no part of the former city is now to be seen, except the tops of some of the temples, and cavaliers. This is a curious phenomenon; but circumstances would not permit me to investigate the particulars on the spot. The natives attribute it to the prayers of a woman, who was drowned while she was crossing the river to visit the place, and who, while dying, wished that it might be overwhelmed by sand. One temple only has escaped; the legend concerning which is extremely absurd. A mendicant came one day to *Talacadu,* intent on making an offering to

Mahádéva, or *Iswara*. The temples dedicated to that idol were, however, so numerous, that he was much at a loss how to procure an offering for each, so as to avoid giving offence to any idol that might be omitted. With his whole means, which were very slender, the holy man purchased a bag of pease, and offered one at each temple; but all his pease were expended, and one idol still remained, to which no offering had been made. Of course it was highly offended at the preference given to the others by a person of his holiness; and, to avoid their insolent boasting, it transported itself across the river, where it now stands at *Malingy*, while its former companions are buried in sand. Near it is a *Sila Sásana*, or inscription engraved on stone; but unfortunately it is not legible, as it might probably have thrown some light on the history of *Talacadu*. CHAPTER VIII. Oct. 2.

The *Cavery* here is at present a fine large and deep river, flowing with a gentle stream about a quarter of a mile in width. In the hot season it is fordable; but after heavy rains it rises above its present level ten or twelve feet perpendicular, and then its channel is completely filled. Once in nine or ten years it rises higher, and occasionally sweeps away a hut; but its floods are never very destructive. *Cavery* river.

The only ferry-boats on this large river are what are called *Donies*, or baskets of a circular form, eight or ten feet in diameter, and covered with leather. They transport with tolerable safety men and goods; but cattle must swim, which is both a fatiguing and a dangerous enterprize. *Bamboo* floats provided with a hawser, so as to form flying bridges, would make an excellent and cheap conveyance. From the north side of the *Cavery* a fine canal is taken by means of a dam, and waters much land near *Talacadu*. Its ferries.

3d *October*.—I went to *Satteagala*, distant from *Malingy* four *Sultany* cosses; but, owing to the deepness of the roads, I was obliged to take a circuitous route, a circumstance that never happened to me in any other place above the *Ghats*. A small village, named Oct. 3. Route to *Satteagala*.

CHAPTER VIII. *Caleuru*, is the last in the present dominions of *Mysore*. *Mulur*, the first place in the Company's territory, is one coss and a half from *Malingy*, and is a pretty large open village.

Oct. 3.

Coleagala.

From *Mulur* I went one coss to *Coleagala*, an open town which contains above 600 houses. It is the residence of a *Tahsildar*, or chief of a *Taluc*, or district; for the officers in the Company's territory differ from those in *Mysore*. It has two large temples, and is a considerable mart for the traders between *Seringapatam* and the country below the *Ghats*, and near the *Cavery*. *Coleagala* signifies the plundered town; which appellation was bestowed on it after it had been pillaged while under the dominion of *Ganga Rája*, to whom it formerly belonged.

State of the country.

From *Coleagala* to *Satteagala* the distance is two cosses and a half. The country through which I passed to-day is in general very fine, and much better cultivated than that between *Narasingha-pura* and *Malingy*. In fact, near *Mulur* and *Coleagala* the cultivation is equal to any that I have seen in India, and consists chiefly of rice-fields watered by means of several large reservoirs. In the *Coleagala* district there were between forty and fifty reservoirs, which about eighty years ago were put in good order by the *Dalawai* of *Mysore*, *Doda Dêva Ráya Wodear*. From that time until the country came into the Company's possession, after the fall of *Seringapatam*, they have been neglected. Six of them have now been completely repaired; and orders have been issued for perfecting the remainder, as soon as the dryness of the season will permit. I passed through the grounds of only one of these decayed reservoirs, and found them entirely waste. I saw also many dry-fields waste, especially near *Satteagala*, where the soil is poor; but in most places it is capable of producing *Huruli*. In this part of the country there are very few fences.

Irrigation.

Works of *Ráma.*

According to tradition, the god *Ráma*, when on his way to *Lanká*, formed the great reservoir at *Satteagala*, and a fine dam named *Danaghiry*, that waters much land below the town.

Oct. 3. *Satteagala.*

Satteagala formerly belonged to *Rájas* who were of the same family with those of *Mysore*. On the death of *Put' arsu*, the last of them, without issue, he was succeeded quietly by his relation *Canterua*, the *Curtur* of *Mysore*. The fort is of considerable size, and in good repair; but at present contains very few houses: the whole number, both in the fort and suburbs, amounts only to about 250. In a *Marattah* invasion before the time of *Hyder*, it was entirely ruined, and most of the children and cattle were swept away. Before the invasion of Lord Cornwallis, about 1000 houses had been again assembled. At that time a party of *Marattah* plunderers ravaged all this neighbourhood; and they were followed by a dreadful famine, in which 400 of the families in *Satteagala* perished of hunger. In the last war, the town was first plundered by the *Lumbadies*, or dealers in grain, belonging to the British army, and then burned by orders from the *Sultan*. The inhabitants are now hardly able to defend themselves from the beasts of prey, with which, from its depopulated condition, the country abounds.

Extent of the district of black soil.

The black soil fit for the cultivation of cotton extends over the lands of the following towns and villages: *Nunjinagodu*, *Moguru*, *Narasingha-pura*, *Ellanduru*, *Sosila*, *Malingy*, *Muluru*, *Cunturu*, *Alahully*, *Homa*, and *Mangala*, and is mostly in the *Rája's* dominions. In the *Coleagala* district the soil is mostly red, and is fit for the cultivation of rice and *Ragy;* of which nearly equal quantities are raised.

Baswa, the village god.

In this part of the country the village god is *Baswa*, or the bull of *Siva*, whose *Pújári*, or priest, is quite distinct from the *Gauda*, or chief of the village. By Major Macleod, the collector, the *Gaudas* are not allowed to rent their villages; but they receive a fixed salary, and collect the revenue from the farmers. Here this office was never hereditary; but that of the *Shanabogas*, or accomptants, always was.

Gaudas.

Sandal-wood.

In the *Coleagala* district are some sandal-wood trees, which are now cutting by the collector, who employs a Mussulman agent.

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Oct. 3.

Fifteen years ago the *Sultan* cut the whole of the large trees. Like the sandal of *Magadi*, it thrives in the high forests of *Mod-hully* and *Mahá-dévéswara*, as well as in the skirts of the cultivated country; but it is not of so good a quality as that on the western frontier.

Forests.

The greater part of the mountains in this district produce only stunted trees, or bushes. *Mod-hully* and *Mahá-dévéswara* are the only ones that are clothed with timber trees; but in size these are greatly inferior to those of the western *Ghats*. Some teak and *Biriday* of a good size may be procured.

Oct. 4. Island of *Sivana Samudra.*

4th *October*.—I went to visit the island of *Sivana Samudra*, or the sea of *Siva*, and its noble cataracts. From *Satteagala*, the upper end of the island is one *Sultany* coss; and its whole length is said to be three cosses, or probably nine miles; but in width it is no where above a mile. The island, at its upper end, is not much raised above the level of the river; but, as its lower end does not sink, while the river falls very rapidly, toward its eastern end it appears to be very high. Owing to the rapidity of the river, and to deep cavities between the rocks and stones of its channels, even in the hot season, there is only one ford that leads to the island, and that is a very bad one in the southern branch. The island is therefore by nature very strong.

Cataract of *Gangana Chuki.*

The northern branch of the river is the most considerable, and soon divides into two channels, which form a smaller island, named *Nellaganatitu*. The channel of this branch next the northern continent is the smallest, and is nearly level until it comes opposite to *Gangana Chuki*, a place on the large island about three miles from its upper end. There it precipitates its water over a perpendicular rock, I suppose nearly two hundred feet high. The stream is very considerable; but is divided by a small island into two great branches, and by large rocks into four or five portions, which before they reach the bottom are quite broken into foam. The water which runs between the two islands is the most considerable portion

of the northern branch of the river. It runs with vast rapidity over and among immense rocks, until it comes to *Gangana Chuki*, where it rushes down into the abyss, which a little way below receives also the other portion. There it is hidden from human view in a cloud of vapour, which is formed by its violence, and which is at times visible even from *Satteagala*. From this circumstance I could not ascertain how far this fall is entirely perpendicular. If it be quite so, the whole height will be about a hundred feet; but at times I thought I could see obscurely through the cloud a projection of the rock, which divided the fall into two stages. I have never seen any cataract that for grandeur could be compared with this; but I shall not attempt to describe its broken woody banks, its cloud of vapour, its rainbow, its thundering noise, nor the immense slippery rocks from whence the dizzy traveller views the awful whirlings of its tumultuous abyss. All these, except in magnitude and sublimity, exactly resemble those of the other waterfalls that I have seen. The pencil of an artist might be well employed in imitating its magnificent scenery, and would convey a better idea of its grandeur than my power of description can venture to attempt.

Oct. 4.

Island of *Sivana Samudra*.

The island of *Sivana Samudra* is in general rocky, with vertical *strata* running north and south. The principal stone is a gneiss, of which the great buildings of *Ganga Rája* are constructed, and which may be cut into blocks of large dimensions. Near the upper end of the island, bridges have been constructed across both branches of the river. They were formed, like that at *Seringapatam*, of long stones placed upright as pillars to support others laid horizontally, so as to form the road. Both bridges have long ago been broken, but many of the pillars still remain erect. Two dams and canals from the southern branch of the river supply the island with water, and, if in good repair, ought to supply with water as much ground as would sow 3510 *Seers* of rice. In order to magnify the wonders

CHAPTER VIII. Oct. 4. of the island, this quantity of seed in the accompts is called 90 *Candacas*, a nominal *Candaca* of 39 *Seers* having been purposely introduced. Owing to the disrepair of the dams, two thirds of this land is at present waste. On the island there is a good deal of land fit for the cultivation of dry grains; and it would be a fine situation for a village, were it not possessed by a *Muni*; on which account, and owing to the terrible disasters attributed to this demon's wrath, no *Hindu* will settle in the place. The people of *Satteagala*, at the time of cultivation, carry over their cattle, and sleep with them in one of the old temples, which is a defence against the tigers that are said to be very numerous. When they have committed the seed to the ground, they return home, and wait there until the time of harvest; when they again go to the island, and bring away their crops.

Munis, or demons.

The *Munis* of *Karnáta*, who are demons of the first magnitude, must be carefully distinguished from a kind of *Bráhmans* of the same name, who have been saints of the greatest holiness, and whose memories persons of all ranks venerate. The *Bráhmans* never openly worship the *Munis;* although it is alleged, that in private many of them make offerings, in the same manner as they do to the *Saktis*, or destroying female spirits. Among the followers of the *Bráhmans* below the *Ghats*, the worship of the *Munis*, who are male destructive spirits, is very prevalent.

Mussulman hermitage.

The only persons who defy this devil, and the tigers, are two Mussulman hermits, that dwell at *Gangana Chuki.* The hermitage is a hut open all round, placed opposite to the tomb of *Pirca Wullay*, an antient saint, and surrounded by some neat smooth areas, and a number of flowering and aromatic trees introduced from the neighbouring forests. One of these hermits was absent on business; the other had no defence from the tigers, but his confidence in the holiness of the place, and in his own sanctity, of which he seemed to have a very favourable opinion. He told me with great

complacency, that he had offended Major Macleod by not answering that gentleman's questions; having been at the time more inclined to read the *Khorán* than to converse with an infidel. He appears to be an ignorant bigot; but the man who is absent is said to possess more conciliating manners. In the reign of the *Sultan*, these hermits received very frequent visits and many presents from the Mussulman officers, and their families. They are now almost deserted, and subsist on a *Candaca* sowing of free-gift-land that they possessed on the island, and of which they have not been deprived.

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5th *October*.—Having remained all night near the abode of the hermit, in the morning I crossed over to view the cataract of the southern branch of the *Cavery*, which is also about three miles from the upper end of the island. The river there is very wide, and in its channel contains a number of rocks and small islands, the largest of which is called *Birra Chuki*. The precipice at the southern cataract may be about a hundred feet high, and forms part of the arch of a large circle, down which the river is thrown in ten or twelve streams. In the center is a deep recess in form of a horse-shoe, down which the principal stream falls; and, having been collected into a narrow channel, rushes forward with prodigious violence, and again falls down about thirty feet into a capacious basin at the foot of the precipice. In the dry season two channels only contain water. The month immediately following the summer solstice is the most favourable for viewing these water-falls, as the river is then at its greatest height. The one on the southern branch contains many beauties; and as a stair has been made, so as to give easy access to the side of the basin, and to afford a fine view of the whole, I think it is by far the most agreeable object of contemplation. The access to *Gangana Chuki* is very bad; and a descent to the river there is both fatiguing and dangerous. Its cataract is, no doubt, more sublime than the other; but in viewing it the mind

Oct. 5. Cataract of *Birra Chuki*.

CHAPTER VIII. is impressed more with awe at its tremendous force, than with pleasure at its magnificence.

Oct. 5. City of *Ganga Rája.* From the falls of *Birra Chuki* I went about a mile to the eastern gate of the old city of *Ganga Rája.* On the walls here some red stains are shown with great gravity, as the blood of the inhabitants who were killed when the place was taken. From this gate a straight wide street may be traced, for about a mile and a half, to another gate that leads to the ruinous bridge over the southern branch of the river. On one side of this bridge is a large temple, and on the other the ruins of the palace, where I was shown the baths in which the *Rája* sported with his women.

History of *Ganga Rája.* On my return to *Satteagala,* an old *Bráhman,* the historian of the place, was brought to me. He had no written documents; but related the following account, on the authority of tradition. About 600 years ago *Ganga Rája,* of the *Anagundi* family, was sent hither by his kinsman, the king of *Vijaya-nagara,* to govern the neighbouring country. On examining all the places in the vicinity, he found none so fit for erecting a city in which he might reside, as the island of *Sivana Samudra,* where there then were two or three small villages. The inhabitants of these informed the prince, that they lived there by the permission of the *Muni;* and unless that could be obtained, certain destruction would await the new built city. In order to obtain the favour of the *Muni,* the *Rája* made daily large offerings of fruits and rice, and prayed incessantly; till at length the demon appeared to him in a dream, and informed him, that he might lay the foundation of the new city whenever a signal was made by the blowing of a *Conch.* The *Rája,* having prepared every thing, was waiting for the signal, when an unlucky *Dáséri* passed by, blowing on his conch, as is usual with that kind of mendicants. This having been mistaken for the signal, the foundation of the city was immediately laid. Half an hour afterwards the *Muni* gave the true signal; at which the *Rája,* being alarmed, had again

recourse to offerings and prayers. Moved by these, the *Muni* appeared to the *Rája*, and informed him, that, as he had begun to build the city at an improper time, it could not be permitted to stand long. Out of his personal regard for the prince, however, the *Muni* would cause the city to flourish for three generations. *Ganga Rája* accordingly reigned there in great magnificence, and died in peace.

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Nandi Rája.

Nandi Rája, the son of *Ganga*, met with many miraculous adventures, and at length was defiled by eating, unknowingly, with a certain servant of the *Whallia* cast, who had the power of rendering himself invisible, and who, while in this state, partook of his master's food. On this occasion, the prince consulted the *Bráhmans*, who advised him to put himself to death. He accordingly delivered the kingdom to his son, and, having persuaded his wife to accompany him, they blindfolded a horse, and, having mounted him, precipitated themselves into the cataract at *Gangana Chuki*.

Ganga Rája II.

Ganga Rája the second enlarged the city greatly, and lived with much splendour. He had two daughters, whom he gave in marriage to the two chief *Polygars* in the neighbourhood. The one was married to the *Rája* of *Kilimaly*, a place now in ruins, and about four cosses from *Satteagala*. The other daughter was married to *Buc' Ráia*, *Rája* of *Nagara-Caray*, one coss east from *Madura*. These marriages were very unhappy; for the pride of the ladies gave their husbands constant disgust. They were continually upbraided for not living in equal splendour with their father-in-law; and at length, having consulted together, they determined to humble their wives, by showing that their power was superior to that of *Ganga Rája*. Having assembled all their forces, they besieged *Sivana Samudra;* but for a time had very little success. The siege had continued twelve years, without their having been able to penetrate into the island, when the two *Rájas* found means to corrupt the *Dalawai* or minister of *Ganga Rája*. This traitor removed the guards from the only ford, and thus permitted the enemy to surprise

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the place, while he endeavoured to engage his master's attention at the game of chess. The shouts of the soldiery at length reaching their ears, the prince started up from the game. The *Dalawai*, who wished him to fall alive into the hands of his sons-in-law, endeavoured to persuade him that the noise arose merely from children at play; but the *Rája*, having drawn his sword, first killed all his women and children, and then, rushing into the midst of his enemies, fought, until he procured an honourable death. The sons-in-law, on seeing this, were struck with horror, and immediately threw themselves into the cataract at *Gangana Chuki;* and their example was followed by their wives, whose arrogance had been the cause of such disasters. *Jagadéva Ráya* of *Chenapattana,* and *Sri Ranga Rája* of *Talacadu,* the two most powerful of the neighbouring *Polygars,* then came, and removed all the people and wealth of the place; and ever since the *Muni* has remained in quiet possession of his island.

True date of these events.

There can be no doubt, that the time of the foundation of the city in *Sivana Samudra* is later than its historian stated. Six hundred years from the present time would make *Ganga Rája* the first anterior to his ancestor *Harihara,* the first king of *Vijaya-nagara.* I afterwards learned, that *Jagadéva's* grandson was alive, and governed a large territory, in the year of *Salivàhánam* 1546. We may allow a hundred years for the reigns of the three princes of *Sivana Samudra* and of the three *Polygars* of *Chenapattana,* which will make the foundation of the city to have happened in the year of *Salivàhánam* 1446, or 188 years after the foundation of *Vijaya-nagara,* and 277 years before the present time.

Antient territory of *Mysore,* and the usurpations of that family.

At the time of the fall of *Ganga Rája* the second, it is said that the *Mysore Rájas* were very petty *Polygars,* and possessed in all thirty-two villages. Other *Polygars* governed *Taiuru, Womaluru, Moguru, Mangala, Ellanduru, Hardena-hully, &c. &c.* all places in what our maps call *Mysore proper.* The first rise of the family is said to have been their destroying the *Rája* of *Sri-Ranga-Pattana,*

called by us *Seringapatam.* This prince possessed the two districts called *Ashta-gráms,* and was of the blood of the *Ráyalus,* the sovereigns of the country; for after the death of *Ráma Rája,* who was killed on the banks of the *Krishna* before the middle of the fifteenth century, several princes of the royal family retired to different strong holds, and for some time retained a certain power, until it was gradually overwhelmed by their rebellious subjects the *Polygars,* or by Mussulman and *Marattah* invaders. CHAPTER VIII. Oct. 5.

Crystal. It is said, that during the hot season some diaphanous shining stones are found in the channel of the *Cavery* above *Gangana Chuki.* I could procure no specimen; but from the description of the natives I suppose that they are rock crystal.

Oct. 6. Cosses, or *Hardaries.* 6th *October.*—I went three computed cosses, called *Sultany,* to *Singanaluru.* The distance could not be above nine or ten miles; so that the cosses called here *Sultany* are not longer than the usual computed cosses or *Hardaries* of the country above the *Ghats.*

On the road I came first to *Pallia,* a considerable open village, one coss and a half south from *Satteagala,* and one coss from *Coleagala.* The interjacent country is beautiful, and lies immediately west from the range of mountains that crown the summit of the eastern *Ghats,* and which are from about 1500 to 2000 feet, in perpendicular height, above the level of the upper country. Although there is here much waste land, the country is better cultivated than most parts of the *Mysore* dominions, and wants only fences, and a large supply of inhabitants, to be complete. There are many large tanks; but these not having been yet repaired, there is at present very little rice cultivated. From *Pallia* to *Singanaluru* the road leads east through a fine valley, but not so well cultivated as that to the westward of the hills. About nine-twentieths of the fields are uncultivated. All the tanks have been in ruins for thirty years; and their cavities, which consist of a fine black mould, are cultivated for *Jola,* wheat, *Carlay,* and cotton. In this mountainous

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tract, which extends from the *Cavery* to *Gujulhatty*, and includes the greater part of the *Coleagala* and *Talemaly* districts, that belong to the Company above the *Ghats*, it is said that the hills occupy one half of the space, and that arable vallies occupy the remainder. Viewed from a little distance to the westward, the hills appear to form a continued chain of mountains. The number of inhabitants in any part of this tract, especially toward the south, according to the report of the natives, is very inadequate to its cultivation; but every where, at some distance, there are villages scattered. The hills are not so rocky as in the range extending north from *Capala Durga*, but they produce hardly any timber. At this season however, from the bushes and grass with which they are clothed, they possess considerable verdure. On these mountains the inhabitants pasture their cattle, and raise a considerable number, although they deny having any flocks for breeding, like the herds of *Madhu-giri*. The pasture is sufficient to support many more than the present stock. There is here no *Gydda Cavila*, or forest renter.

Singanaluru.

Singanaluru has a small ruined fort, which has been deserted ever since it was plundered by the *Marattahs* before the government of *Hyder*. Previous to the invasion by Lord Cornwallis, the suburb contained a hundred houses; but having been plundered by the *Brinjáries*, or *Lumbádies*, that brought grain to his army, the bulk of the inhabitants perished from hunger. It now contains thirty-five houses, and has a temple dedicated to *Baswa*, or the bull of *Iswara*.

Worship of the bull.

The people in this part of the country consider the ox as a living god, who gives them their bread; and in every village there are one or two bulls, to whom weekly or monthly worship is performed; and when one of these bulls dies, he is buried with great ceremony. These objects of worship are by no means *Sannyásis*, but serve to propagate the species. When a woman of the sacred cast has not a child so soon as she could wish, she purchases a young bull,

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carries him to the temple, where some cerèmonies are performed; and ever afterwards he is allowed to range about at pleasure, and becomes one of these village gods. The *Bráhmans*, however, abstain from the absurd worship of these animals, although they are considered as possessed of a *Bráhman's* soul. On the north side of the *Cavery* this superstition is not prevalent. The bull is there considered as merely respectable, on account of *Iswara's* having chosen one of them for his steed, and as the animal is occupied by the soul of a *Bráhman* in a state of purgation.

Palmira tree.

Major Macleod, the collector, has just now sent up people with the seed of the *Palmira* tree, or *Borassus flabelliformis*, in order to instruct those here in the manner of cultivating that palm. They are forming a plantation on good land, a quarter of a coss in length, and 200 yards wide. The people here were formerly supplied with palm-wine from the wild date; but by the orders of the *Sultan* these were all cut; for the rigidity of this prince's morals would not allow him to permit, in his territory, the growth of an intoxicating substance.

Rigidity of the late *Sultan*.

Oct. 7. Face of the country, and state of population.

7th *October*.—Following the same valley in which *Singanaluru* is situated, I went two cosses to *Hanuru*. The soil is rather poor, and in some places stony; but, owing to a want of cultivators, a great deal of good land is waste. *Hanuru* is an open straggling village, which contains between seventy and eighty houses. For the accommodation of travellers, a *Choultry*, or inn, has lately been erected. Before the invasion of Lord Cornwallis it contained five hundred houses; but, having been then plundered, most of the inhabitants were dispersed, or died of hunger. One coss and a half east from *Hanuru* is *Hagi-pura*, which in the government of the former *Rájas* was a fort that contained six hundred houses. Its works were allowed by *Hyder* to fall into decay, and it now contains only four or five houses. The *Shanaboga*, or accomptant of this village, estimates, that in the *Coleagala* district there is only

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one-fourth of the people that would be necessary to cultivate all the arable lands. The reservoir here has long been filled with mud.

Passage of the *Cavery* down the *Ghats*.

Hanuru is estimated to be five cosses from *Bud-hully*, the nearest place on the *Cavery*. Below *Sivana Samudra* the immediate banks of the river are so steep and high, that there is no road near it, and very little cultivation: but villages are every where scattered in the vallies that lie among the hills, which are included in its great bend, as it descends the *Ghats*. A road passes from *Hanuru* to *Kanya-karna-hully, vulgo Cancan-hully*, and crosses the *Cavery* at a ford called *Baswana Kydda*, which is about half a coss below the place where the *Ráma-giri* river enters. In other places the *Cavery* tumbles over rocks and precipices, which, although not of great height, render the channel so uneven, that it is impassable.

Forest of *Hediny Betta*.

The principal hill between the *Cavery* and the southern extremity of the eastern *Ghats* is called *Hediny Betta;* and on this chiefly grow the timber trees that are to be procured. It produces chiefly *Tayka*, *Biriday*, *Whonay*, and *Jala*, which have all been before mentioned. The sandal wood grows on a hill called *Mahadevéswara*.

Tati-holay river.

On the east side of *Hanuru* is a small river of clear water, which some years, even in the hot weather, does not become dry. It is called *Tati-holay*, and falls into the *Cavery* two cosses below *Baswana Kydda*. On the banks of this, two cosses below *Hanuru*, is *Rudra-pura*, formerly a large place. It had rice and sugar grounds watered by a dam and canal, from the *Tati-holay;* but now the whole is in ruins. On this rivulet there are still four dams in repair; but the grounds which they supplied with water are entirely unoccupied. The rivulet is too inconsiderable to be depended on for a regular supply of water from its dams; so that the crops were uncertain: but this might be remedied by forming reservoirs to collect the water of its canals, and by sowing no more seed than the quantity collected would be able to mature.

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Seasons.

In this mountainous district there are two rainy seasons. The first is in the month following the vernal equinox, and is called *Mungaru*. During this the *Wull' Ellu*, or *Sesamum*, is sown. The second lasts the two months before, and the two immediately following, the autumnal equinox. These rains bring to maturity the crops of *Ragy*, *Shamay*, *Jola*, *Cambu*, *Udu*, *Hessaru*, *Huruli*, and *Carlay*. Since the country has been under the management of Major Macleod, the solar year of the *Tamuls* has been introduced.

Cotu-cadu cultivation.

In this hilly tract are a number of people, of a rude tribe called *Soligas*, or *Soligaru*, who use a kind of cultivation called the *Cotu-cadu*, which a good deal resembles that which in the eastern parts of Bengal is called *Jumea*. In the hot season the men cut the bushes that grow on any spot of land on the side or top of a mountain, where between the stones there is a tolerable soil. They burn the bushes when these have become dry, and leave to the women the remainder of the labour. When the rains commence, these with a small hoe dig up the ground to the depth of three inches. They then clear it of weeds, and next day sow it broad-cast with *Ragy*, here and there dropping in a seed of *Avaray*, *Tovary*, mustard, maize, or pumpkin. The seed is covered by another hoeing. A woman in one day can hoe ten cubits square, and on the next can sow it. The sowing season lasts about two months; so that the quantity sown in a year by every woman may be estimated at somewhat less than the sixth part of an acre. The custom however is, for all the people of one village to work one day at one family's ground, and the next day at another's in regular succession. The villages in general contain four or five families. The women perform also the whole harvest.

Plantain gardens, or those of the *Musa*.

These people have also plantain gardens. To form one of these, they cut down the bushes, and form pits with a sharp stick. In each of these they set a plantain-sucker, and ever afterwards keep down the grass and bushes, so as to prevent them from choking the

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garden. The plantains are very large and coarse, and are eaten partly when ripe, and partly when green. Every family of the *Soligaru* pays annually to government three *Fanams*, or about two shillings.

Customs of the *Soligaru*.

Such is the account given by themselves of their system of agriculture; I now proceed to detail, on the same authority, the customs of the *Soligas*.

The *Soligas* speak a bad, or old dialect of the *Karnáta* language; but have features a good deal resembling those of the rude tribes of *Chittagong*, to whom in many respects they are inferior in knowledge. They have scarcely any clothing, and sleep round a fire, lying on a few plantain leaves, and covering themselves with others. They live chiefly on the summits of the mountains, where the tigers do not frequent; but where their naked bodies are exposed to a disagreeable cold. Their huts are most wretched, and consist of *Bamboos* with both ends stuck in the ground, so as to form an arch, which is covered with plantain leaves. I have already explained the nature of their agriculture. The men supply the farmers with timber and *Bamboos*; and they gather various esculent leaves, and wild *Yams (Dioscoreas)*. They also collect honey, which they immediately eat. They possess no domestic animals, and have not the art of killing game. They would willingly eat meat, but cannot get it. They are ignorant of the art of distilling, or fermenting any grain or liquor, and refuse to drink any thing that will intoxicate. They have hereditary chiefs, who manage the business of the tribe with the officers of government; these settle all disputes among their clients, and give good advice to those who are not disposed to observe the rules of cast; but they never fine, whip, nor excommunicate any offender. Every man takes as many wives as he can persuade to live with him after they have arrived at the age of puberty. Widows are permitted to marry again. When a girl consents to marry, the man runs away with her to some

neighbouring village, and they live there until the honey-moon is over. They then return home, and give a feast to the people of their village. Among their women adultery is unknown. The sons remain in their father's house until they are married. They then build a hut for themselves, and each contributes a share toward the support of their aged parents. The dead are buried; and all the rags, ornaments, and implements of the deceased are placed in his grave. On this occasion the family, if they are able, give a feast. Once a year each family celebrates a feast in commemoration of their deceased parents. If this be omitted, the parent becomes a *Déva*, or devil of low degree, and torments the undutiful children until they perform the proper ceremonies. The *Soligas* pray to *Vishnu*, under the name of *Ranga Swámi;* and on festivals they give some plantains to the priests at his temples. They are too poor to have either *Guru*, or *Puróhita.*

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8th *October*.—I went four computed cosses to *Caud-hully*. The road is hilly, and on the whole descends considerably. There is scarcely any cultivation; and the soil of a great part of the valley is very poor: still there appears to be much now waste that possesses a good soil, and not a little that has formerly been cultivated. Even the fields immediately contiguous to *Caud-hully* are entirely waste. I passed many small torrents that convey the rain water into the *Tati-holay*. The two most considerable are the *Ududaray*, half a coss from *Caud-hully;* and the *Caud-hully*, close to the village of that name. From the former a canal gave a precarious supply of water to some rice grounds. Both might be easily employed to fill reservoirs. The water of the *Caud-hully* is excellent, and may be procured, even in the driest seasons, by digging a little depth in the sand of its channel.

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In the last war General Floyd came here to meet a convoy coming up from *Káverí-pura* under Colonel Read, who was accompanied by a large body of *Brinjáries*, or dealers in grain, and a

Depredations of the *Brinjaries*, and the *Nizam's* army.

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numerous rabble belonging to the *Nizam's* army. The country through which such ruffians passed is of course entirely ruined, and not a house is to be seen between *Hanuru* and *Caud-hully*.

Caud-hully.

This last place then contained two hundred houses. Of these ninety have been rebuilt, but not a single cultivator has returned. At present the inhabitants are traders, and their servants and dependents; for this is a principal thoroughfare between the country below and that above the *Ghats*. In the former *Saliem*, in the latter *Gutalu* near *Mundium*, and *Seringapatam*, are the principal marts. In going to *Gutalu*, the *Cavery* is crossed a little above *Satteagala*. Some merchants are settled here, who purchase investments below the *Ghats*, and carry them to *Gutalu*; where they again lay in goods that are in demand at *Saliem*. The goods that are sent from the upper country are turmeric, *Betel-nut*, black pepper, *Cut*, or *terra japonica*, *Danya-seed*, opium, *Jagory*, sugar, and *Copra*, or dried coco-nut-kernel. Those that are brought up the *Ghats* are cotton-cloths, tobacco, boiled butter, rice, salt, *Palmira-Jagory*, and castor-oil. The custom-master, under pretence of having sent the books to his superior at *Coleagala*, will give me no account of the quantity: indeed, as he farms the customs, his showing them could not reasonably be expected. It is said, that in *Tippoo's* government the trade was much greater than it is at present.

Trade between the countries above and below the *Ghats*.

Carriage cattle.

The goods are all transported as back-loads on oxen or asses. A load for an ox weighs eight *Maunds*, or a little more than 194 lb. The hire for four computed *Sultany* cosses is one *Fanam*, or nearly $7\frac{1}{2}$*d.* In the *Ghats*, owing to the badness of the roads, the cosses are very short. Good cattle travel four cosses a day, and middling ones three cosses. A good ox costs eighty *Fanams*, or about 2*l.* 9*s.* 11*d.* and must be fed with grain. The asses are only employed by persons of the lowest cast, who trade in grain and salt; yet, if any pains were taken with the breed, they would in this arid

country be cheaper means of carriage than oxen are. A good ass, that costs five *Rupees* (10*s.* 10*d.*), will daily travel three cosses, and carry forty *Seers* of grain, weighing about eighty-five pounds. His keep is next to nothing. CHAPTER VIII. Oct. 8.

Caud-hully is the first place of any note above the *Ghats*. Below them, the two places nearest it are *Alumbady* and *Káveri-pura*. Each is estimated to be twelve cosses distant; but the roads are bad, especially that to *Alumbady*, which is therefore never frequented by merchants. Roads through the *Ghats*.

The people of *Caud-hully* and *Hanuru* either pretend to be, or really are, the most stupid of any that I have ever seen, and the labouring class are most wretchedly poor. Inhabitants.

9th *October*.—I went three computed *Sultany* cosses to *Mat'-hully*, or *Marat-hully*. The natives here begin to compute distances by hours, and call what we have come to-day six *Urnalivulies*, or hours' journies. The hour, as is usual all over India, is the sixtieth part of a day, or 24 minutes. This mode of computing distances is employed every where in the country of the *Tamuls*; and an hour's journey is by the Europeans of *Madras* called a *Malabar-mile*. I suppose it is the same with what Major Rennell calls a coss of the *Carnatic*: for coss is a word of *Hindustan proper*, and is not employed in the dialects of the south: but coss is a word now universally received among the English in India; for which reason I use it as a translation for the *Hardary* of *Karnáta*. Oct. 9. Distances computed by time; *Urnalivuly*, or hour's journey.

The road from *Caud-hully* to *Mat'-hully* is so surrounded by mountains, that the traveller has no view of the country below the *Ghats*. Except in a few places that might be easily avoided, the road is not very steep; but it is very stony, as is the case with the country through which it passes. Road down the *Ghats*.

In several parts the country has formerly been cultivated, and much of the valley is capable of being rendered arable; but at present all near the road is quite waste. The natives say, that there Country.

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are many small villages in the valley, both south and north from that part of it through which we came; but in the late war great numbers of the houses in them were ruined. *Mat'-hully* is totally deserted, except by the *Pújári* of its temple, which, he says, is dedicated to *Brahméswara*, a brother of *Siva*. With this god my *Bráhman* is not acquainted. A *Choultry*, or inn, has been lately built for the accommodation of passengers, whose resort will soon, no doubt, bring back inhabitants.

Brahméswara, a god.

Two rivulets, that contain perennial streams, join at *Mat'-hully*; and, running down the valley, meet the *Palar*, which comes from the south. The united streams turn to the east, and join the *Cavery* below the *Ghats*. The western rivulet is the largest; it is named *'Bagali*, and rises from the west side of *Mahádévéswara* hill. This hill is the only place in the *Coleagala* district that produces sandal-wood, and has on it a very celebrated temple, from whence it derives its name, and which is distant from *Mat'-hully* four cosses. It is surrounded by villages and cultivation. The smaller and eastern rivulet, from a fort that stood near it, is named *Cotay*.

Depredations committed by the *Brinjaries*.

The farmers from the neighbouring villages, that came to sell provisions, were miserably poor. Most of their stock having been carried off in the late war, the greater number of the survivors have been obliged to go down to the country below the *Ghats* to work as servants. Many died of hunger, and still more from the diseases brought on by want. The chief plunderers were the rabble belonging to the *Nizam*, and the *Brinjaries*, who are most ferocious ruffians, that not only plunder, but wantonly murder, every defenceless person that comes in their way. My interpreter, who was in the party coming up with Colonel Read, confirms the truth of what the natives say. No exertions of our officers could prevent the *Brinjaries* from plundering, not only the enemy, but the villages belonging to the Company that were in the neighbourhood of their route. Colonel Read's humanity and justice are too well known in the eastern

parts of *Mysore*, for a single person there to imagine that every possible exertion for their safety was not employed. CHAPTER VIII.

10th *October*.—I went three computed cosses to *Nidy Cavil*, which in the *Tamul* language signifies the *guard of the middle;* this place being in the middle of the *Ghats*, and situated at the boundary of *Karnáta* from the *Chéra Désam*, which includes what we call the province of *Coimbetore*, and the district of *Saliem*. Oct. 10. *Chéra Désam.*

Soon after leaving *Mat'-hully*, I reached the *Palar*, which comes from the south-west, and passes through a valley that is cultivated from its source downwards to *Nelluru*, which is four cosses from where we joined the river. From *Nelluru* to the bottom of the *Ghats* this valley is very narrow, and could scarcely admit of any cultivation. There are, however, some level spots that might be cultivated, and this would add greatly to the comfort of passengers. I am persuaded, that *Palmira* trees would thrive near the banks of the *Palar* the whole way; and their produce would find a ready sale. The channel of the *Palar*, so far as I have seen it to-day, has a very moderate declivity, and at present contains a good deal of water; but in many places it is fordable. For several days together, after heavy rains, it is frequently impassable, to the great distress of travellers. In the dry season there is no stream in its channel; but, by digging in the sand, good water may always be procured. The dry weather, however, is here of uncommon short duration; for the rains from the eastward commence as soon as those from the west have abated. I have now been out the whole of the rainy season above the *Ghats*, and to-day I met the violence of the monsoon coming from the eastern side of the peninsula. *Palar* river.

The road passes by the side of the *Palar*, and frequently crosses its channel. In the dry season, indeed, this is generally used by travellers. A good road, and one of easy declivity, might without much trouble be constructed. At present, nothing can be worse. The hills on both sides are steep, and covered with trees; but few of them are of a size fit for timber. Road down the *Ghats*.

CHAPTER VIII.

Oct. 10.

Strata of the eastern *Ghats.*

The *strata* of the *Ghats* run north and south, and are vertical. They are so much intersected by fissures, as to be of little use for building. In one place I found large concretions of lime-stone, resembling those found at *Maléswara Betta*, which have the appearance of the petrified nests of white auts: but here the masses were infinitely too large to have derived their origin from such a source. The ore of iron, in form of black sand, is very plentiful; but in this neighbourhood none is smelted.

CHAPTER IX.

FROM THE KAVERI-PURA GHAT TO COIMBETORE.

CHAPTER IX.

Oct. 11.

OCTOBER 11th, 1800.—*Nidy Cavil*, at which I have now arrived, is situated on the frontier between *Karnáta* and *Chéra Désams*, two of the ancient divisions in *Hindu* geography. It was formerly a small fort, and was occupied by a few *Sepoys*; but the fort is now in ruins, and the guard has been withdrawn. A commodious building for the convenience of passengers had long ago been erected by *Guttimodaly*, a person who seems to have had great influence in *Chéra*. This has lately been repaired, and placed under the care of a *Bráhman*, who receives from government four *Rupees* a month, and has seven cows allowed him to serve gratuitously all travellers with milk. This is perfectly according to Indian custom; but by no means answers the purpose of procuring milk for the passengers. The *Bráhman*, having no object to attain by attention to the cattle, is contented with drawing from them as much as will serve himself; and of this he will spare a little to any rich traveller, from whom, of course, he expects a present of five times its value. A shopkeeper has also been established here, with a monthly salary of two *Rupees*. He ought to keep a supply of provisions for all travellers who choose to purchase them; but he complains, that he has very few customers, every one bringing with him a supply of necessaries.

Accommodation for travellers.

The *Bráhman* and shopkeeper say, that every day, on an average, about twenty oxen loaded with goods pass this way. During the government of *Hyder*, ten times that number usually passed. A company of the traders called *Lumbadies*, that employed 12,000 cattle,

Trade.

CHAPTER IX. Oct. 11.

obtained from the *Sultán* a monopoly in every article of commerce, except cloth, tobacco, and boiled butter, which continued open. These *Lumbadies* dealt chiefly in grain, large quantities of which they brought from the low country for the supply of *Seringapatam.*

Road down the *Ghats.*

To-day I went three computed cosses to *Chica Cavil,* at the bottom of the *Ghats.* The road is by no means steep; but the day's journey was laborious, as we were obliged to cross the *Palar* four times, and it was exceedingly swollen by the heavy rains. The road, I believe, might readily be conducted, the whole way, on one side of the river; but, as the stream for a great part of the year is inconsiderable, travellers have been in the habit of crossing it on the slightest difficulty; and thus the path has been formed in a manner very inconvenient for those who are compelled to pass it after heavy rain.

Appearance of the country.

The hills on both sides of the river are steep, but afford abundance of pasture for cattle, and in a few places leave level spots, that might be made comfortable abodes for the managers of flocks, or for the cultivators of *Palmira* trees. From the hills on either side, several small clear streams run into the *Palar. Chica Cavil,* or the *Small guard,* is a house built for the accommodation of passengers, on a rising ground above the *Palar,* where it enters the valley watered by the *Cavery,* as that river comes south from *Alumbady.* From the rising ground, those who delight in rude scenes of nature may enjoy a most beautiful prospect. The valley watered by the *Cavery* is here very rough, and contains few people and little cultivation.

Polygars of *Alumbady.*

The inhabitants of this neighbourhood are a strange mixture of those who speak the languages of *Karnáta* and of *Telingana.* These last have probably been introduced by the *Polygars* of *Alumbady,* named *Araluppa Naïdus,* and who were of the *Bui* cast, who among the *Telingas* are the bearers of palanquins. They were troublesome ruffians, who possessed the rough country on both sides of the *Cavery,* as it descends the *Ghats*; until the last of them suffered

himself to be deluded by the fair promises of *Trimulaia*, a *Bráhman*, who in the government of *Hyder* was *Amildar* of *Káverí-pura*. The *Bráhman*, after several visits, and many professions of friendship, at last induced the *Polygar* to make him a visit with few armed attendants. Immediately on his having got the *Polygar* in his power, regardless of the ties of hospitality, the *Amildar* hanged the ruffian; who met with a merited fate, had it been inflicted by honourable means. Such policy, however, is not unusual among the natives of Asia.

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Querulous disposition of the natives.

The chief of a neighbouring village, who supplied me with provisions, was exceedingly disposed to complain. He first told me, that, since the Company had acquired the government of the country, his rent had been raised from 6 to 11 *Pagodas* a year; but, as I knew that the rent was fixed on the fields, I soon brought him to confess, that he now occupied much more land than he did under *Tippoo's* government. He then complained, that now he could not cheat the government: in former times, by means of a small bribe, he could get excused from paying a large share of his rent.

Tenures and rent.

These rents are all paid in money, the whole cultivation in this valley being that of dry grains. They are fixed on each field by a valuation made in the reign of the *Sultán*, which is very unequal; but people have lately been employed to measure all the arable lands, with a view of making a more just assessment. The *Gauda*, or chief of the village, prefers paying his present rent to an equal division of the crop; and says, that he would be contented to give government one third of the produce. Owing to the dilapidations to which such a mode of paying rent must be subject, it is evident, that the public, by what is called an equal division of the crops, would not in reality get one third of the produce: the present rent, therefore, is probably not excessive.

Poverty of the cultivators.

The *Gauda* complains also, and I believe with reason, of the great poverty to which the people are reduced by the plundering of the *Lumbadies*, who in the last war supplied the army with grain. He

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acknowledges that the collector offered to advance money to enable the farmers to carry on cultivation, and that none was accepted.

Tacavy, or money advanced to assist poor cultivators.

The reason he assigns for this is, that the money advanced, or *Tacavy*, was to have been repaid immediately after cutting down the crop: the farmers would therefore have been under the necessity of selling at once the whole of their grain; and thus, by glutting the market, they would have been great sufferers. A great many of them, who have now been forced to work as labourers, would have thankfully received *Tacavy*, to be repaid, by instalments, in the course of two or three years. It must, however, be evident, that such advances are extremely inconvenient to any government, and perhaps could not be made without doing injustice to those who paid the taxes necessary to raise the money advanced. Nor are such advances in general attended with any national advantage; they do not enable the people to cultivate one acre more, and are an assistance only to some individuals, who, if they did not receive advances to enable them to cultivate their own fields, must hire themselves out to work on the fields of those who have stock. They are, however, a favourite maxim of Indian policy; partly as having a popular appearance of liberality, and partly as opening a great field for corrupt partialities.

Sandal-wood.

The hill producing sandal-wood is three cosses distant from *Chica-Cavil*. It is here called *Punashy conda*, which is its proper name; that by which it is commonly called above the *Ghats* is derived from *Mahá-dévéswara*, a temple built on it. The Mussulman who is employed to cut the sandal is said by the querulous *Gauda* to use the neighbouring people very ill, and to give them no pay. It appears to me, however, that the *Gauda* is not a man likely to suffer any injustice without complaining, and he does not say that he has ever in vain applied for redress.

Strata of the eastern *Ghats*.

In the *Ghats* above this place the most common *strata* are gneiss, and a quartz strongly impregnated with iron. Both are vertical,

and run north and south. They are much intersected by veins and fissures; so that no large blocks could be procured. The most remarkable mineral phenomenon here is the lime-stone, or *Tufa calcaria*. In its nature it entirely resembles the *Congcar* of *Hindustan* proper. Some of it is whitish, and some of an earthy brown. It is found in very large masses, many feet in length, and often six or eight in thickness. It appears to me to have been once in a state of fluidity resembling thin mortar, and to have flowed irregularly over many large spaces of these *Ghats*; after which it has hardened into its present form. Where it flowed through earthy or vegetable matters, it filled up the interstices between their parts; and afterwards, having been freed from them by their gradual decay, and the action of the rains, masses of it are now exposed to the air perforated in all directions, like that which I found at *Malaiswara Betta*. In other places, this liquid has flowed among the decaying masses of rock and gravel. It has filled up all the veins and rents of the former, and united them again into a solid mass. With the gravel, it has formed a substance entirely resembling the mortar made of quick-lime and that matter, but of a very great hardness. This rock is therefore evidently of a much later formation than the *strata* of the mountains; having been formed after they began to decay, and even after the formation of mould and vegetables. (Oct. 11.)

12th *October*.—I went five computed *Malabar* hours' journey, which, I suppose, Major Rennell would call five cosses of the *Carnatic*, and came to *Káveri-pura*. The country in general is level, but very stony, and full of rocks even with the surface. About forty or fifty years ago it is said to have been wholly cultivated, so far as the rocks would permit; and the soil is a red clay and sand, very productive of dry grains. Ever since, from the unsettled state of the country, the cultivation has been gradually on the decline; and now the country is entirely waste and uninhabited, except in the immediate neighbourhood of *Káveri-pura*, where a little wretched cultivation is visible. The fences here are commonly (Oct. 12. Appearance of the country.)

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built of loose stones, in a manner similar to the *sheep-dykes* of Galloway, which keep out cattle remarkably well. Those near *Káverí-pura* are badly constructed, and, as usual with *Hindu* fences, are kept in bad repair.

Ghats.

The mountains, viewed from the banks of the *Cavery* here, do not appear to be higher above the level of the country than they did from *Satteagala* above the *Ghats*. This is probably owing to their eastern ridges being lower than those to the westward, but yet sufficiently high to conceal the others from the view. The *Cavery* here is at present a wide and strong, but smooth stream, which is no where fordable; but in the dry season it has fords every where.

Káverí-pura.

The fort of *Káverí-pura* is said to have been built by *Guttimodaly*, who was *Polygar* of much of the neighbouring country; and who also, in order to protect his territories from the *Polygars* of the hills, built *Nidy-Cavil*, and *Chica-Cavil*. The suburb is at some distance from the fort, and contains about a hundred houses, with the ruins of a much greater number. It is said, however, that the place was never larger, nor more populous, than at present; and that the ruins are houses, which were built by a *Husséin Saheb*, who wished to have enlarged the town, but never could induce inhabitants to occupy his buildings. The place did not suffer from the *Lumbadies* under Colonel Read, as he could spare a guard to repress their barbarity; but they are said to have plundered many villages on the opposite side of the river, which then belonged to the Company, and was under his government. The greater part of the populace inhabiting *Káverí-pura* speak the *Tamul* language. Most of the *Bráhmans* speak the language of *Karnáta*, or the *Canarese* as we call it. They seem to be still more brutally ignorant than the people of *Mysore* south from the *Cavery*; and I soon found the only two officers of the place, the chief, and the accomptant, to be inveterate liars.

Irrigation.

The fort is separated from the suburb by a rivulet named *Swayamvará-pallum*, which formerly filled a large tank, named *Swayamvará*

Eray, which is situated $2\frac{1}{2}$ cosses, or about 5 miles, south-west from *Káverí-pura*. It supplied with water as much ground as sowed 16,000 *Seers* of rice, or probably about 520 acres; but unfortunately it burst down more than fifty years ago, and has never since been repaired. The *Sultán* ordered an estimate to be made of the expense necessary for the purpose; but finding it to amount to 18,000 *Pagodas*, or about 6000*l.*, he desisted. CHAPTER IX. Oct. 12.

This is a considerable thorough-fare between *Dalawai petta*, *Comara pallium*, *Pallaputti*, *Nerinja-petta*, *Ama-petta*, *Erodu*, *Tuduputti*, *Sitodu*, *Aravacurchy*, *Nangapulli*, *Womaluru*, *Saliem*, *Rashepuram*, *Namaculla*, *Sadamangalam*, and *Dindigul* on the one hand; and on the other *Gutalu*, *Naggara*, *Seringapatam*, *Gubi*, *Coliagala*, *Coud-hully*, and *Band-hully*. A custom-house has accordingly been erected; but as the duties are farmed, I could not expect the officers to give me a fair account of the exports. In the course of the last two months, they say, there has passed nearly, Trade.

	Loaded oxen.
Of cloth - - - -	50
Of tobacco - - -	300
Of *Ghee*, or boiled butter, - -	70
Of castor oil - - -	10
Of poppy seed - - -	5
Of *Goni*, or hemp - - -	5
Of *Palmira Jagory* - - -	50
Of potstone vessels - - -	5
	495; or about

eight loaded oxen daily. I have met between forty and fifty loaded cattle every day, since I left *Coud-hully*; but such a great number may have been accidental. By the account of the people at *Nidy-Cavil*, about 20 cattle passed that place daily; and one half of these being taken, as those going up, will agree tolerably well with the account which the officers of *Káverí-pura* gave. The

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trade in *Tippoo's* reign was, it is said, much more considerable; but then it consisted chiefly in grain, which the reduced population in *Seringapatam* renders no longer necessary.

Houses of the natives.

13th *October.*—I went ten *Malabar* hours' journey to *Navaputty;* that is, the nine villages, having formerly been the principal of nine adjacent hamlets. It is a sorry place, containing about twenty houses. The huts of the country, called *Chéra*, are like bee-hives; and consist of a circular mud wall about three feet high, which is covered with a long conical roof of thatch. Contrary to what might have been expected in a hot climate, but agreeable to the custom of almost all *Hindus*, one small door is the only out-let for smoke, and the only inlet for air and light. Each family has a hut for sleeping, another for cooking, and a third for a storehouse. Wealthy men add more huts to their premises, but seldom attempt at any innovation in the architecture of the country.

Appearance of the country.

To some distance from *Káveri-pura* the plain continues, but it is extremely rocky and poor. Afterwards there are many high mountains, reaching from the *Ghats* to the *Cavery.* These do not form a continued ridge, but are separated into detached hills by vallies, through which the traveller passes from *Káveri-pura* to the level country that is watered by the *Bhawání.* These vallies are less rugged, and contain a better soil, than the country near *Káveri-pura;* but in both, owing to a scarcity of cultivators, there is much arable land unoccupied. The people say, that the oppression of *Tippoo*, and of his officers, drove many of the cultivators to forsake their homes, and retire to the country, under the just and humane government of Colonel Read. Last year a great number of their cattle perished, owing to the epidemic distemper.

Irrigation by means of the river *Tumbula.*

On the north side of the range of hills is a fine little river, named the *Tumbula*, or *Colatur*, from its having passed through a large reservoir named *Colatur Eray.* Between this, and where the river joins the *Cavery*, had been formed four reservoirs; and nearer the source *Vencata Ráya* had formed a fifth, called after his own name. About

50 years ago this gave way after a heavy rain, and the torrent broke down the mounds of all the reservoirs in the lower part of the rivulet. They have never since been repaired, although the quantity of ground which they watered is said to have been very considerable. A *Bráhman* has this year made a small dam on the *Tumbula*, and the cultivation of rice has again commenced. CHAPTER IX. Oct. 13.

Guttimodaly, Polygar of Womaluru.

Near this rivulet is a small town named *Shamli*, with a fort entirely in ruins. It was built by *Guttimodaly*, who lived at a place called *Womaluru*, distant 16 *Malabar* hours' journey toward the east, and which is probably the *Wombinellore* of Major Rennell. About a hundred years ago this prince's territory was conquered by the *Mysore* family, after an obstinate resistance. *Shamli* fort was at that time destroyed, and has never since been repaired.

Palmira gardens.

In this country the cultivation of *Palmira* gardens is pretty extensive. This tree is the *Borassus flabelliformis* of Linnæus, the *Tál* or *Tár* of Bengal, and the *Panna Maram* of the *Tamuls*. In many parts of India it grows almost spontaneously, but here it is reared with some care. It thrives best in a strong black clay, next on the red soil commonly used for *Ragy*, and it will also grow on the poor sandy soil called here *Mamul*; but its produce is then very small. When a new plantation is to be made, the ground in *Adi* (13th July to 13th August) is ploughed twice. The fruit for seed is gathered in the beginning of this month, and kept in a heap until the end; when the field is ploughed a third time, and the seeds, having been separated, are put into the ground at the mutual distance of three cubits. They are placed in the bottom of a furrow after the plough, and are covered by the next. For 9 or 10 years the young palms are secured from cattle by a fence, and require no farther care. At this age they are about six feet high; and, as cattle cannot then injure them, the fences are removed, and the garden is used for pasture. When the trees have been planted in a good soil, they begin in 30 years to produce *Callu*, or *Palmira-wine*; but in a poor soil 40 years are required. When they have arrived at maturity, the

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ground between the trees is cultivated every year for grain; but this, although it increases the quantity of *Palmira-juice*, yields not more than one half of what the field would do, were it not planted. This palm is supposed to live a thousand years; that is, it lives longer than can be ascertained by tradition. No care is taken to plant young trees in place of the old ones that have been destroyed by accident, or by old age; but young ones spring up in the empty spaces from the fruit that drops from maturity. I observe, however, that in most of the plantations the trees are at great distances; and it is said, that many of the young ones are cut down for their cabbage, or central young shoot; while the bears and wild hogs eat most of the fruit that falls.

Palmira-wine.

This palm produces juice five months in the year, from about the 11th of January until the 11th of June. The stem must be cleared from all the roots of the branches, which is attended with a good deal of trouble; and the workman mounts by means of a strap passed round his back, and a rope round his two feet. An active man can manage forty trees, but an awkward fellow will only manage fifteen. They are all of the cast called *Shanan*, or in the plural *Shanar*. Before the bursting of the membrane which covers the flowering branch, and which botanists call the *spatha*, the workman bruises it between two sticks for three successive mornings. On each of the four following mornings he cuts from its tip a thin slice. These operations prevent the *spatha* from bursting; and on the 8th morning a clear sweet liquor begins to flow from the wound. A pot must then be suspended, so as to collect the liquor, as it drops from the *spatha*. A good tree will give daily about three ale quarts of juice, a bad one about a sixth of that quantity. If the juice is to be boiled into *Jagory*, a little quick-lime must be put into the bottom of the pot in which it is collected; in order, I suppose, to absorb any acidity, and thus to prevent fermentation. This is not done when the juice is intended for drinking, as then the stronger it ferments so much the better wine will be produced.

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Palmira Jagory.

In order to make *Jagory*, the juice of the *Palmira* tree is boiled down on the same day that it is collected. Four pots being placed with a fire under their common center, about three quarts of the juice is put into each, although they could contain four times that quantity; for, in boiling, this liquor is apt to overflow. The violence of ebullition is allayed by throwing in some bruised seed of the *Ricinus*, and by stirring about the juice with a branch of the *Sunda*, or *Solanum pubescens* Willd: When the juice has been boiled for two hours, a small quantity is taken out and tried. If it has been sufficiently boiled, it will form into a ball between the fingers; but, if it will not cohere, the evaporation must be continued. When ready, it is formed into a mass, or ball, by pouring it into a hole in the ground, or in a piece of timber. Every three quarts of liquor should give one *Seer* and a half, or a little less than one pound. This *Jagory* is used both for eating and distilling, and a great part of it is exported to the *Mysore* country. It sells at the rate of 32 *Tucus* for 7 *Rupees*, or for about *5s. 3d.* for the hundred-weight.

Rent of palm gardens.

The *Shanar*, or collectors of palm-wine, cultivate the ground among the trees, paying half rent for it; and every man takes as many trees as he can manage. For these he pays annually six *Rupees;* but this not by an actual poll tax. In the accompts of the villages, a certain number of trees are supposed to be in each; a certain number of *Shanar* is supposed to be able to manage these; and for this number the tax is paid. Although from nine to twelve men may be actually employed in a village which is rated as having three *Shanars*, the government receives only eighteen *Rupees*. It may in general, indeed, be observed respecting *Hindu* accompts, that, with a vast appearance of detail, they are extremely erroneous; for the minuteness is not intended to elucidate the state of revenue; but to enable the inferior officers to confuse matters, and thus to peculate without detection.

Loss of rent in forming *Palmira* gardens.

It is estimated, that a plantation of *Palmira*, including land rent and *Shanar* capitation, pays two and a half times as much, as the

CHAPTER IX. Oct. 13. same ground cultivated for dry grains would do; but, in order to procure this, a total sacrifice of between 30 and 40 years rent must be made. Old gardens ought therefore to be most carefully supported; and the cultivators should be bound to plant young trees in the empty spaces; for a new garden can never be formed with advantage at such an expense, unless there be much more land in the country than the existing stock can cultivate. This being the case at present, it is very judicious in Major Macleod to make plantations now, as the land that he employs would at any rate pay no rent.

Oct. 14. Appearance of the country.

14th *October*.—Having been deceived about the distance, concerning which it is very difficult to get accurate information, I went a very short way to *Nerinja-petta*, which was said to be five *Malabar* hours' journey. I passed through a narrow plain, bounded on my left by the *Cavery*, and on my right by high hills. The soil of this plain, in some places, is covered with rock, and sand intermixed with calcarious *Tufa;* but much of it is good, although, from a want of inhabitants, very little is cultivated. There is no rice land.

Nerinja-petta.

Nerinja-petta is a poor open town, said to contain about two hundred families. The inhabitants of three hundred houses are said to have retired from it to the country under Colonel Read's management, in consequence of the contributions levied by *Jemál Khán*, to enable the *Sultán* to pay the sum which was exacted from him by Lord Cornwallis. Previous to that emigration, the place contained many traders and cotton weavers. These were of three kinds; *Muca Chambadavar*, *Shaliar*, and *Coicular*. The first have entirely deserted the place; and of the two last only eight houses remain. The *Shaliar* are a tribe of *Telinga* origin, and are the same with those who above the *Ghats* are called *Padma Shalay*.

Cavery river.

The *Cavery* here begins to rise about the 26th of May. It is at the highest from the 13th of July until the 13th of August, before the rainy season commences. As this advances, it decreases in size,

but does not become fordable until after the 11th of January. At *Nerinja-petta* a dam was built across the *Cavery* by *Cada Ráya*, one of the family of *Chica Déva Rája* of *Mysore*. It formerly sent a canal to each side of the river; that on the left ran five *Malabar* hours' journey; that on the right ran three hours' journey, watering the fields all the way between it and the river; both have been entirely ruinous from the breaking down of the dam, which happened at a period beyond the memory of the oldest inhabitant.

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People called *Malayála*.

On *Palla* hill, which extends from *Shamli* to *Nerinja-petta*, are sixteen villages of *Malayála*, or hill people, who on the summit of their mountain cultivate all the dry grains of *Mysore*, and have the only *Mango (Mangifera)* and *Jack (Artocarpus integrifolia)* trees that are to be found in this neighbourhood. These villages are said each to contain from five to sixteen houses; but are so difficult of access, that I could not visit them without a day's halt. Several similar hills are scattered through Major Macleod's district on both sides of the *Cavery*. The inhabitants of the plains cannot live on these mountains; nor can the highlanders live on the plains, without the greatest danger to their health. They are a distinct cast from the people of the plains; but quite different from the people of *Malayálam*, or what we call the province of *Malabar*, although both people are known by the same name, from their both inhabiting hilly countries.

Bears.

In the hills here are many black bears. These are harmless animals, living chiefly on white ants, wild fruit, and that of the *Palmira* tree. The only injury that they do is to the crops of *Sholum (Holcus sorghum)*. If a man disturb or surprise a bear, he is liable to be killed by the animal, but not to be eaten. It is unsafe, therefore, to approach these animals, especially advancing straight before them; for, the bear's eyes being turned backwards, he does not see the person advancing towards him until he is alarmed by the man's near approach, and then attacks the sudden intruder. The bear is very strong, and is not afraid of the tiger. It lives in caves, and holes

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under large stones. Such is the account of the natives; for in the south of India I have not seen the animal, although there can be no doubt that it is the *Bradypus ursinus* of naturalists, which is a real bear.

Cotu-cadu cultivation.

The *Cotu-cadu* cultivation is carried on by the poor farmers of this neighbourhood, when they have not stock sufficient to enable them to plough the arable fields. Having assembled some of these, they told me, that the soil fit for their purpose is to be found both on the southern face of the great mountains, and on the smaller hills between these and the *Cavery*. It is known by its producing an abundance of trees, and is in general extremely steep, being always situated on the declivities of the hills. It is not reckoned worse for containing many large stones, and projecting rocks; as by these the soil is kept cool and moist. When a spot fit for the purpose has been determined, the trees are cut down in the first three months of the solar year, commencing on the 11th of April. Toward the middle of July they are burned; and from about the 28th of that month the seed is sown, and then covered by digging the ground with a small hoe. The seeds are *Collu (Dolichos biflorus)*, *Tenay (Panicum italicum)*, and *Cambu (Holcus spicatus)*. These are all sown separately; but with each of them is intermixed a small quantity of cotton seed. The season for sowing the *Tenay* and *Cambu* continues until about the 13th of September; then commences the season for sowing the *Collu*, or *Horse-gram*, and it lasts for a month: after twenty or twenty-five days the crops are weeded. The *Tenay* and *Cambu* ripen in three months; but five are required to bring the *Horse-gram* to maturity. Next year the cotton produces, and the different grains are then sown, and hoed in between the cotton plants. In the third year a new spot must be cleared; and the former requires ten years for the trees to grow up again, the ashes of these being a necessary manure. This ground, when it has been cleared, is measured, and the rent is one-fourth of what would be paid in the plains for a similar extent of dry-field. Major Macleod

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discourages this kind of cultivation, as it takes away useful hands from the plough. A man can cut down and burn the trees growing on one *culy* of land, or rather less than one acre. When he sows, in order to do the whole quickly, he hires as many labourers as he can; but he is again hired to sow the field of his neighbour. On this extent of land, besides one *puddy* of cotton-seed, may be sown five *puddies* of *Horse-gram*, and eight *puddies* of *Cambu*, or *Tenay*. In the first year it will produce two hundred and forty *puddies* of *Horse-gram*, and two hundred and sixty of *Cambu*, or *Tenay*. The second year's crop will be about one hundred and sixty *puddies* of *Horse-gram*, and one hundred and seventy-two of *Cambu* or *Tenay*, with four *tucus* of cotton-wool. One acre at this rate will in the first year produce about six bushels of *Horse-gram*, and six and a half of *Cambu*, or *Tenay*; in the second year four bushels of *Horse-gram*, a little more than four of *Cambu*, or *Tenay*, and about thirty-two pounds of cotton-wool.

Oct. 15. Appearance of the country.

15th *October*.—I went ten *Malabar* hours' journey to *Bhawání-kudal*, called in our maps *Boviny Coral*. The country on the right of the *Cavery* is free from hills, except one conical mountain, which rises from the bank of the river near *Bhawání*. The soil in general is stony, or sandy; but in some places the stones are mixed with a strong red clay. At one reservoir, the people have recommenced the cultivation of rice, and have cleared about three acres for the purpose; all the other cultivation that I saw was that of dry-field. A very small proportion of the country is, however, cultivated. The *Cambu* (*Holcus spicatus*), which is here the prevailing crop, looks much better than it did above the *Ghats*. At *Ama-petta*, a town containing about forty houses, and full of inhabitants, not a single spot of ground was cultivated; the people being all merchants and weavers. I crossed two rivulets, the *Sitaru* and *Punachi*. Irrigation. The former supplied a large reservoir with water; but this was broken down by the flood that has destroyed so many others in the neighbourhood, and has never been repaired. The ground that it

CHAPTER IX. Oct. 15. watered has been planted with *Palmira* trees, which are a poor substitute for rice. The *Punachi* fills a reservoir, from which some rice-grounds now receive a supply of water.

Strata. The *strata* run north and south, and are much intermixed with calcarious matter, that has diffused itself among them while it was in a fluid state. It is chiefly found near rivulets and torrents. On the banks of the *Sitaru* I observed it under an extensive *stratum* of white quartz; but I do not think it can be from thence inferred, that the quartz is of so recent a formation as the calcarious *tufa.* It may have been undermined by the rivulet, and the calcarious matter afterwards deposited under it, so as to fill up the empty space.

Bhawání-kudal. *Bhawání-kudal* is an old ruinous fort at the junction of the *Bhawání* with the *Cavery.* It contains two very celebrated temples; the one dedicated to *Vishnu,* and the other to *Siva;* and was built by a *Polygar* named *Guttimodaly,* who held all the neighbouring countries as a feudatory under the *Rájas* of *Madura,* whose dominions, including *Saliem, Tritchenopoly,* and all the country south of *Sholia,* or *Tanjore,* were called by the general title *Angaraca,* and comprehended the two countries called *Chéra* and *Pándava.* At one of the temples there is an inscription on stone, giving an account of its foundation; but as the hour, day, month, and year of the cycle are only mentioned, it is impossible to ascertain the date of its erection; and on this subject the most learned *Bráhmans* here profess ignorance; nor can they give any information concerning the time when the country became subject to *Mysore.* Their knowledge of the history of the country, they say, ceases with the overthrow of *Rávana* king of the *Racshasa,* to whom it belonged, by *Ráma* the king of *Ayudya,* which happened exactly 879,901 years ago. The only information that they can give concerning *Guttimodaly,* except the miraculous actions performed in erecting the temple, is, that he was contemporary with *Dalawai Ráma Peya,* prime minister to the *Rája* of *Tritchenopoly,* who was also a feudatory of the *Rája*

Guttimodaly Polygar, and the Rája of Madura.

of *Madura*. Both families intermarried with the old *Sholia Rájas*, or princes of *Tanjore*. It is probable, that all these families rose into great distinction after the overthrow of the kings of *Vijaya-nagara*; for the *Bráhmans* here are so little informed in history, as to think that the present *Marattah* dynasty has been in possession of *Tanjore* for an immense time.

Town of *Bhawání*.

The suburb of *Bhawání-kudal* is a very poor place; but, as it has become the head *Cutchery*, or office of all the district under the management of Major Macleod, it will increase very rapidly; as the situation is very fine, and a plan for building it regularly and handsomely has been laid down by that gentleman. Money has also been advanced to assist new settlers to build good houses, and it is to be repaid by moderate instalments. Many new houses are building, which promise to be better than any that I have yet seen in the course of my investigation.

Strata.

The *strata* at *Bhawání*, although of the same nature with those near the *Ghats*, run about north-west and south-east, with a great dip towards the north.

Inhospitable disposition of the *Hindus*.

16th and 17th *October*.—I remained at *Bhawání-kudal*, taking an account of the state of the country, and endeavouring to repair my tents, which, from having been long exposed to rain, had become very crazy; but I met with a severe loss in not finding Major Macleod at home. My information was much less complete than it would have been had I received his assistance; and the poverty of the place, joined to the obstinate and inhospitable disposition of its inhabitants, prevented my equipage from getting the repairs, and my servants and cattle from obtaining the refreshments, of which they were so much in need. Although very high prices were paid for every thing, no article could be procured, without long continued threats of instantly forwarding, to the collector, a complaint of the neglect which the native officers showed in obeying the orders of the government of Madras. I purchased the very articles sent from hence to *Seringapatam* cheaper there, than we were

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obliged to pay for them on the spot where they grew. I mention these difficulties, which are very frequently met with by travellers in all parts of India where Europeans have not resided long, to show the inhospitable nature of its inhabitants. From the strict attention which I paid in redressing every injury done by my followers to any person whatever, I am confident that no attempt was made to take any thing without full payment.

Feeble constitution of the natives.

The health of my people is now beginning to suffer from the constant change of air and water, which the natives of India do not support so well as Europeans.

Tamul Calendar.

The *Lokika*, or vulgar men of the world, throughout the countries in which the *Tamul* language is spoken, use a solar year called *Surya-mánam* in the *Sanskrit*. The almanac here came from *Tanjore*, the great seat of learning in the southern part of India. The current year is as follows. It is reckoned the year 1722 of *Sáliváhanam* and the 4901 of the *Kali-yugam*. This, it must be observed, differs one year in the former era, and seven in the latter, from the reckoning in *Karnáta*.

Tamul Months.		European Months.		*Tamul* Months.		European Months.	
Chitri 1722 -	1	11	April 1800.	*Chitri* 1722 -	20	30	April 1800.
	2	12			21	1	May.
	3	13			22	2	
	4	14			23	3	
	5	15			24	4	
	6	16			25	5	
	7	17			26	6	
	8	18			27	7	
	9	19			28	8	
	10	20			29	9	
	11	21			30	10	
	12	22			31	11	
	13	23		*Vyashi* - - -	1	12	
	14	24			2	13	
	15	25			3	14	
	16	26			4	15	
	17	27			5	16	
	18	28			6	17	
	19	29			7	18	

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Tamul Months.		European Months.		*Tamul* Months.		European Months.	
Vyashi 1722 -	8	19	May 1800.	*Ani* 1722 - -	26	7	July 1800.
	9	20			27	8	
	10	21			28	9	
	11	22			29	10	
	12	23			30	11	
	13	24			31	12	
	14	25		*Adi* - - - -	1	13	
	15	26			2	14	
	16	27			3	15	
	17	28			4	16	
	18	29			5	17	
	19	30			6	18	
	20	31			7	19	
	21	1	June.		8	20	
	22	2			9	21	
	23	3			10	22	
	24	4			11	23	
	25	5			12	24	
	26	6			13	25	
	27	7			14	26	
	28	8			15	27	
	29	9			16	28	
	30	10			17	29	
	31	11			18	30	
Ani - - -	1	12			19	31	
	2	13			20	1	August.
	3	14			21	2	
	4	15			22	3	
	5	16			23	4	
	6	17			24	5	
	7	18			25	6	
	8	19			26	7	
	9	20			27	8	
	10	21			28	9	
	11	22			29	10	
	12	23			30	11	
	13	24			31	12	
	14	25			32	13	
	15	26		*Avony* - - -	1	14	
	16	27			2	15	
	17	28			3	16	
	18	29			4	17	
	19	30			5	18	
	20	1	July.		6	19	
	21	2			7	20	
	22	3			8	21	
	23	4			9	22	
	24	5			10	23	
	25	6			11	24	

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Tamul Months.			European Months.	*Tamul* Months.			European Months.
Avony 1722 -	12	25	August 1800.	*Peratashi* 1722	30	13	October 1800.
	13	26			31	14	
	14	27		*Alpishi* - - -	1	15	
	15	28			2	16	
	16	29			3	17	
	17	30			4	18	
	18	31			5	19	
	19	1	September.		6	20	
	20	2			7	21	
	21	3			8	22	
	22	4			9	23	
	23	5			10	24	
	24	6			11	25	
	25	7			12	26	
	26	8			13	27	
	27	9			14	28	
	28	10			15	29	
	29	11			16	30	
	30	12			17	31	
	31	13			18	1	November.
Peratashi - -	1	14			19	2	
	2	15			20	3	
	3	16			21	4	
	4	17			22	5	
	5	18			23	6	
	6	19			24	7	
	7	20			25	8	
	8	21			26	9	
	9	22			27	10	
	10	23			28	11	
	11	24			29	12	
	12	25			30	13	
	13	26		*Carticay* - -	1	14	
	14	27			2	15	
	15	28			3	16	
	16	29			4	17	
	17	30			5	18	
	18	1	October.		6	19	
	19	2			7	20	
	20	3			8	21	
	21	4			9	22	
	22	5			10	23	
	23	6			11	24	
	24	7			12	25	
	25	8			13	26	
	26	9			14	27	
	27	10			15	28	
	28	11			16	29	
	29	12			17	30	

Tamul Months.			European Months.	*Tamul* Months.			European Months.
Carticay 1722	18	1	December 1800.	*Tey* 1722 - -	9	19	January 1801.
	19	2			10	20	
	20	3			11	21	
	21	4			12	22	
	22	5			13	23	
	23	6			14	24	
	24	7			15	25	
	25	8			16	26	
	26	9			17	27	
	27	10			18	28	
	28	11			19	29	
	29	12			20	30	
Margully - -	1	13			21	31	
	2	14			22	1	February.
	3	15			23	2	
	4	16			24	3	
	5	17			25	4	
	6	18			26	5	
	7	19			27	6	
	8	20			28	7	
	9	21			29	8	
	10	22			30	9	
	11	23		*Mashi* - - -	1	10	
	12	24			2	11	
	13	25			3	12	
	14	26			4	13	
	15	27			5	14	
	16	28			6	15	
	17	29			7	16	
	18	30			8	17	
	19	31			9	18	
	20	1	January 1801.		10	19	
	21	2			11	20	
	22	3			12	21	
	23	4			13	22	
	24	5			14	23	
	25	6			15	24	
	26	7			16	25	
	27	8			17	26	
	28	9			18	27	
	29	10			19	28	
Tey - - -	1	11			20	1	March.
	2	12			21	2	
	3	13			22	3	
	4	14			23	4	
	5	15			24	5	
	6	16			25	6	
	7	17			26	7	
	8	18			27	8	

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Tamul Months.			European Months.	*Tamul* Months.			European Months.
Mashi 1722 -	28	9	March 1801.	*Panguny* 1	15	26	March 1801.
	29	10			16	27	
	30	11			17	28	
Panguny - -	1	12			18	29	
	2	13			19	30	
	3	14			20	31	
	4	15			21	1	April.
	5	16			22	2	
	6	17			23	3	
	7	18			24	4	
	8	19			25	5	
	9	20			26	6	
	10	21			27	7	
	11	22			28	8	
	12	23			29	9	
	13	24			30	10	
	14	25					

Owing to a different manner of introducing the intercalary days, the beginning of the *Surya-mánam* year varies from the ninth to the eleventh of April.

Weather.

The following is the account given by the most intelligent persons of the weather in the different seasons, or *Ritus*.

I. *Chitri* and *Vyashi* form *Vasanta Ritu*. The winds are moderate, and from the southward, except about twice in the season; when, for from ten to fifteen days, violent squalls come from the westward, accompanied with thunder and lightning, with pretty heavy showers, and sometimes with hail. Before the squalls the sky is red; at other times it is clear, with warm sunshine, and neither fogs nor dews. At this season the trees flower.

II. *Grishma Ritu* contains *Ani* and *Adi*. Once in eight or ten days heavy showers come from the westward, accompanied by much wind and thunder, but no hail. There are fogs on the hills, but not in the open country. In the intervals between the rains the heat is moderate, with cloudy weather, and strong westerly winds.

III. *Varsha Ritu* contains *Avony* and *Peratashi*. At this season

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heavy and incessant rains, for five or six days, come from the westward, with similar intervals of fair weather, and are attended with lightning, but no thunder, and very moderate winds.

IV. *Sarat Ritu* contains *Alpishi* and *Carticay*. In the former, heavy rains come, once in six or eight days, from the north-east. Each fall in general continues a whole day. There is very little wind, and the heats are by the natives reckoned moderate; that is, to an European they are not absolutely frying. In *Carticay*, there are usually only two or three days rain, which also comes from the eastward. The winds are moderate, and easterly. The air is cool. Toward the end of the month there are heavy dews.

V. *Hémanta Ritu* contains *Margully* and *Tey*. About the middle of *Margully* there are showers for three or four hours in the day, with moderate winds from the south, and some thunder. At other times there are heavy dews, with a very cold air, and south-easterly winds of very moderate strength. The sky is sometimes clear, and at others cloudy.

VI. *Sayshu Ritu* contains *Mashi* and *Panguny*. Towards the end of *Panguny* there are sometimes squalls from the westward, with thunder and rain; but the greater part of the season is clear and hot, with light breezes from the south, and moderate dews.

In the southern parts of the *Coimbetore* province, opposite to the breach in the mountains at *Ani-malaya*, the winds in the beginning of the south-west monsoon are excessively violent.

All the people here allege, that the rains are more regular and in greater quantity above the *Ghats*, than they are here. This however appears to me doubtful: although here, as well as above the *Ghats*, the westerly winds bring the strongest rains; yet here they enjoy a considerable portion of the rain from the other monsoon, which must prevent the country from ever being burnt up by a long drought.

Fevers and fluxes are epidemic from about the middle of October Diseases.

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until the tenth of January; and generally at the same time the epidemic distemper prevails among the cattle.

Since this part of the country has been under the management of Major Macleod, that gentleman has endeavoured to introduce a regular standard of weights and measures, similar to those in the parts of his district that were formerly under Colonel Read. The shortness of the time has, however, hitherto prevented this salutary measure from being completely effected; and the weights and measures of almost every village differ from those of its neighbours.

Land Measure according to Regulation.

For rice-land. 24 *Adies*, or feet square = 1 *Culy* square feet 576
100 *Culies* - - - - = 1 *Chei* - - 57,600
The *Chei* is therefore = $1\frac{322}{1000}$ acre nearly.

For dry-field. $6\frac{1}{2}$ feet - - - = 1 *Mar*
16 *Mars* - - - = 1 *Chingali*
4 *Chingalis* square = 1 *Bulla* = 173,050 square feet.
The *Bulla* is, therefore, $3\frac{973}{1000}$ acres nearly.

The *Chingali*, or chain, belonging to the collector's office, I found to be actually 102 feet 8 inches long, and very rudely formed, some of the *Mars* being five or six inches longer than others; for in India such a piece of workmanship as a measuring chain is far beyond the skill of any native, who has not received long instruction from an European. On measuring a *Bulla* of land, I found it $3\frac{[illegible]}{1000}$ acres. These differences are trifling, however, and of no consequence in such accounts of the country as can be procured by a traveller, who is constantly liable to errors of much greater magnitude. In this part of Major Macleod's district, the old computed *Cheis*, and *Bullas*, are still continued in the accompts of every village, and every where vary from one another.

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Weights, according to the new Regulation.

52 grains =1 *Star-Pagoda.*
520 grains, or 10 *Star-Pagodas*=1 *Polam.*
4160 grains, or 8 *Polams* - =1 *Cucha Seer*=0.$\frac{5943}{10000}$ lb.
20800 grains, or 5 *Cucha Seers* =1 *Visay.*
166400 grains, or 8 *Visays* - =1 *Munnagu*=23,$\frac{771}{1000}$ lb.

The *Munnagu*, by the English, is usually called *Maund.*

The old weights, however, are in general use, and are as follow:

177 grains =1 *Dudu.*
1416 grains, or 8 *Dudus* =1 *Polam.*
4248 grains, or 3 *Polams*=1 *Seer*=00,$\frac{6068}{10000}$ lb.
21240 grains, or 5 *Seers* =1 *Visay.*
141600 grains, or 100 *Polams*=1 *Tola*=20,$\frac{2285}{10000}$ lb.

By this are sold *Betel-nut*, black-pepper, *Jagory*, tamarinds, *Siragum*, or cummin-seed, *Mendium*, or fenugreek, mustard, sugar, spices, cotton-thread, raw-silk, poppy-seed, garlic, ginger, *Ghee*, or boiled butter, and medicines.

Cotton-wool is sold by the *Tucu* of 50 *Polams*=10,$\frac{114}{1000}$ lb.

Dry Measures in use.

		Cubical inches.
56 *Dudus* weight of *Horse-gram* (seed of the *Dolichos biflorus*) - - -	1 *Puddy* - =	45,$\frac{305}{1000}$
224 *Dudus*, or 4 *Puddies* - - - - -	=1 *Bulla* =	181,$\frac{22}{100}$
8960 *Dudus*, or 40 *Bullas* - - - - - -	=1 *Candaca*=	7248,$\frac{8}{10}$

The *Candaca*, therefore, contains 3,$\frac{371}{1000}$ bushels.

Coins.

Accompts are kept in *Sultany Rupees*, and fractions, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, &c. as usual in India. The sixteenths here are called *Vishuns*. The variety of coins current is very great, and hardly any of them are aliquot parts of the *Sultany Rupee*; nor is there any regulated price

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for their value, the money-changers managing the affair as they please. The following is the market-price at present, in *Sultany Rupees*, and decimal parts.

Gold Coins.

Varahun Sultany, or *Tippoo's Pagoda* -	*Sy. Rs.*	3,625
V. Bahadury, or *Hyder's* ditto - - -		3,625
Pu Varahun, or *Star* ditto - - -		3,25
Feringy ditto, or *Porto Novo* ditto - -		2,75
Sultany Panam, or *Fanam* - - -		0,2335
Vir'-Ráya ditto, or ditto - - -		0,2222
Gopaly ditto, or ditto - - -		0,125

Silver Coins.

Sultany Rupea - - - -	1,0
Pondicherry ditto - - - -	1,0
Company ditto, *Rupee* coined at Madras -	0,9062
Arcot ditto - - - - -	0,875
Myla Panam, double *Fanam* of Madras -	0,1481
Shina ditto, or single *Fanam* of Madras -	0,0740

Copper Coins.

Ani Dudu, or elephant *Dub* of Madras English -	0,0146
Ani Cashi, or ditto - *Cash* of ditto - -	0,0029

The *Sultany Rupea* contains 165 grains of pure silver, and therefore would be worth, at the royal mint in the Tower, a little less than 2*s*. But $3\frac{1}{4}$ *Rupees* purchase one *Star-Pagoda*, containing $41\frac{47}{100}$ grains of pure gold, which are worth at the same $88\frac{1}{4}$*d.* nearly: besides, one *Rupee* exchanges for $4 + \frac{1}{4} + \frac{1}{4}$ of $\frac{1}{8}$ *Sultany Fanams*, which reduced to decimals is 4,2812, and these at the mint price are worth 32*d.* Silver therefore, both here and at *Seringapatam*, is of considerably more value in proportion to gold,

than it is by the standard of British coin. In all calculations I shall reduce the money to the British standard by the most common coins current in the province of *Coimbetore;* and these are the *Sultany* and *Vir'-Ráya Fanams:* the former is worth at the British mint $7\frac{456}{1000}$*d.* and the latter $5\frac{942}{1000}$*d.*; but where great precision is not wanted, the one may be taken at $7\frac{1}{2}$*d.* and the other at 6*d.* For changing a *Rupee* into copper money, the dealers in coin take two *Cash.* If silver is wanted for gold, nothing is required; but if gold is wanted for silver, nine *Cash* are required for every *Pagoda.* The shells called *Couries* are not current.

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Road Measure.

Distances are reckoned by the time a man ought to take in walking them. The distance a man can walk in the *Hindu* hour, or twenty-four European minutes, is called *Urnalivully;* which must be what Major Rennell means by a coss of the *Carnatic,* whereof $37\frac{1}{2}$ go to a degree. $7\frac{1}{2}$ *Urnalivullies* are reckoned 1 *Cadam,* or day's-journey with loaded cattle. $2\frac{1}{2}$ *Urnalivullies* are equal to one *Sultany Coss,* or *Hardary. Coss,* it must be observed, is a word from the north of India.

New measurement and valuation.

The principal native officer here says, that people are now employed in measuring the lands which belong to all the villages in this lately acquired division of Major Macleod's district. The measurement, however, will be by no means complete; as large hills and wastes are not included within the boundaries of any village, and will not be comprehended in the accompts. Even within the village boundaries it is only the lands that are considered arable, or as capable of being made so, that are actually measured; steep and rocky places are taken by conjecture. The people employed to measure are called *Peymashi* (i. e. measurers); as while they measure the land they put on it a fair valued rent, which is to be that levied on the farmers, as soon as the valuation is complete. In the mean while the cultivators pay the tax to government by an old

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rental and measurement, which is extremely unequal and erroneous. The fields have been found to contain from $\frac{1}{4}$ more to double of what they ought to do, and their rents have been found to be not at all in proportion to the quality of the soil. The surveyors are dependent on the collector alone; and their reports are made up into proper form by fifteen clerks called *Mutasiddies*, who reside at the principal office.

Rent of dry-field.

The old *Bullas* of dry-field let from eight to twenty-five *Canter'-Ráya Fanams*; but it is impossible to say what this would amount to by the acre, owing to the inequality of their dimensions.

Rent of watered land.

Formerly the watered lands were let by a division of the crops, and in the country below the *Ghats* the government took two-thirds of the crop, leaving one-third to the cultivator. About thirty years ago this was altered by *Hyder*, who introduced a fixed rent, the accompts being kept in *Vir'-Ráya Fanams*. On this many of the old farmers, who were mostly *Bráhmans*, ran away, and the ground was forced upon those who remained, and the *Súdras*, who had formerly been chiefly employed in cultivating dry-field. The *Sultán* raised the rents from *Vir'-Ráya* to *Canter'-Ráya Fanams*; on which all the old farmers disappeared, and the lands fell entirely into the hands of the *Súdras*, who were obliged to betake themselves to a better mode of cultivation, that they might be able to pay the high rent. The watered lands are let by what is computed to be a *Candaca* sowing. The actual rent for one of these is from eighty to two hundred *Canter'-Ráya Fanams*; but one hundred and twenty may be taken as the average, which is equal in value to twelve *Candacas* of rough rice. The whole additional rents imposed by the *Sultán* have been removed; and, owing to the poverty of the farmers, an abatement of ten per cent. has been made, from what was demanded by *Hyder*. My informant does not think that the land-tax under that judicious prince was by any means exorbitant. He says, that the farmers always prefer the division of the crop, to a fixed rent; partly from their being able to defraud the government;

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and partly from those who are necessitous being obliged to sell off the whole of their grain immediately after harvest, in order to pay the rent. Such a large quantity brought into the market at once unavoidably depresses the price. The plan which *Purnea* has adopted in the vicinity of *Seringapatam* seems an excellent one; he has there fixed the quantity of grain to be paid annually; by which means fraud is avoided, and the farmer is not forced to sell his grain to a disadvantage. A farmer cannot be turned out of any field that he has cultivated, so long as he pays the fixed rent, but he may give it up whenever he pleases. Advances of money, for one year without interest, have been made by the Company to such of the poor farmers as chose to accept of this assistance, in order to enable them to carry on cultivation. The government keeps up all reservoirs or canals for watering the land; which is done by paying money wages to day-labourers, under the inspection of the district native officers, or, if the work be great, under the inspection of an officer *(Daroga,* or *Mutasiddy)* appointed for the purpose.

Village officers.

Every village had formerly an hereditary chief, or, as he is called in the *Tamul* language, a *Munigar;* and every large village, or every two or three small ones, had an hereditary accomptant, called here *Canicapillay*. An order was issued both by *Hyder* and *Tippoo,* that all offenders and peculators should be dismissed from these offices, and new men appointed in their stead; but these orders were never enforced until it was done by Major Macleod. The new men are considered as put in possession of an hereditary office, and are liable to forfeiture on account of misdemeanour.

Manner of letting the lands by the *Canicapillays*.

On the fifteenth of November, and the forty-five following days, every farmer gives in to the *Canicapillay*, or village accomptant, a list of the fields which he undertakes to cultivate for that year. The accomptants then assemble, and deliver to the collector a list of all the lands that have been taken; the rental of the lands so taken is then made out from the fixed valuation, and the whole farmers of each village are jointly bound for the payment of its

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Munigars, or chiefs of villages.

rent. This is the principal duty of the *Canicapillay*, but he is also bound to assist the *Munigar* in collecting the rent.

The *Munigars* are not now permitted to rent or farm their villages; as it was found that they spent the money, as it was raised from the cultivators, and were not able to fulfil their engagements. The rents are now paid by eight monthly instalments, which are received from the cultivators by the *Munigar*, and immediately transmitted to the chief officer of the district, called a *Tahsildar*. Whenever a farmer is deficient in the payment of an instalment, he is by the *Munigar* carried to the *Tahsildar*, who puts him in confinement until his effects are sold; and any deficiency that there may then be, is made up by a contribution from the other farmers. It becomes thus impossible for any man to conceal his property in order to defraud the government, as every neighbour is interested to watch over his conduct.

Inferior village officers.

The only other village officer is the *Toti*, who serves as a messenger and watchman. In villages where there is rice ground, there is also a *Nunjy*, or man to distribute the water, and watch over the reservoirs and canals.

Pay of the village officers.

The whole of these are paid by government, and the proper allowance is for the *Munigar* two per cent. on the rental; for the *Canicapillay* two per cent.; for the *Toti* $1\frac{1}{4}$ per cent.; and for the *Nunjy* $1\frac{1}{4}$; in all, $6\frac{1}{2}$ per cent.: but in small villages this allowance is increased, and in large ones it is diminished, so as to make the whole reasonable.

Lands belonging to the village gods.

In every village there are charity lands belonging to the *Grama Dévatas;* that is to say, to their priests, who in this country are never *Bráhmans*. These lands are cultivated by the priest, who pays a small rent, but one very inadequate to their value. The *Sultán* ordered all these lands to be resumed; but he could not carry the order into execution, and Major Macleod does not attempt to enforce a measure so odious.

Unreasonable exactions abolished.

The officers of government, in travelling on public business, were

formerly provided at the different villages with forage for their cattle, and with firewood, without payment; but Major Macleod has entirely abolished this vile practice.

Division of the country into *Talucs*, or districts.

This country, under Major Macleod's management, is divided into *Talucs*, paying annually from 28,000 to 45,000 *Star Pagodas*, or from about 10,293*l.* to 16,545*l.*, if the *Pagoda* be taken at its mint value. The establishment of officers for a *Taluc* is one *Tahsildar;* one *Sherishtadar;* three *Gomastas, Mutasiddies*, clerks, or agents; one *Saraf*, or money-changer; one *Gola*, or treasurer; six *Raiasa*, or letter-writers; and from thirty to forty *Attavanies*, or messengers: besides a proportion of the five or six hundred *Candashara*, or armed men, that are kept in the whole country. All these receive monthly wages.

Tahsildar.

The duty of the *Tahsildar* is to travel through their districts, inspecting the conduct of the village officers; so as to prevent them from oppressing the farmers, and from cultivating any ground, except that which pays rent. He superintends the repairs of tanks and canals, receives the rents from the village officers, and transmits them with care to the general treasury. He acts as civil magistrate, in the first instance deciding all causes, but in every case there is an appeal to the collector. As officer of police, he takes up all criminals; and, having examined witnesses, sends an account of the proceedings to the collector, who either orders punishment, or, if not satisfied, personally investigates the matter. He has no power, without orders from the collector, to inflict corporal punishment. There is no jurisdiction in the province of a civil nature, that possesses the power of life and death; a want of which authority is much felt, as murders and robberies are very frequent. In order to punish the more daring attempts of this kind, recourse has necessarily been had to courts martial. Eight chiefs of villages went to the insurgent *Dundia*, and procured from him an order to plunder the country. Having returned with this commission, they collected about five hundred ruffians, and plundered *Sati-mangala*. Thirty of

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these people, having been taken, were hanged about four months ago. Had not very vigorous measures been taken to repress their barbarity, every farmer in the district was ready to have joined them, in order to share in the plunder of the towns. It must indeed be observed, that throughout India the military portion of the *Súdra* cast, who are the common class of cultivators, are all by inclination addicted to robbery.

Serishtadar and *Mutasiddy.*

The *Serishtadar* and *Mutasiddies* are accomptants. The accompts were formerly kept in the *Canarese,* or language of *Karnáta;* but, since the country came under the Company's dominion, they have been changed into the *Marattah.* Both languages seem improper for the purpose. The accompts ought certainly to be kept in the language of the *Tamuls,* which is that of the country, and which would not require the revenue officers of Madras to become acquainted with an additional dialect.

The *Munigar,* or chief, is also hereditary village priest.

Having assembled the most intelligent farmers in the neighbourhood, they told me, that, whatever government may choose to do with his power and emoluments, the real hereditary *Munigar* will always continue to enjoy his rank as chief; for he is the only person who can perform the annual sacrifice to the goddess *Bhadra Káli,* to whom in every village there is a temple, as being the *Gráma Dévatá,* or village deity.

Religious establishment.

When *Tippoo* stopped the allowances that had formerly been granted to the temples of the great gods, the revenue officers collected money from the people in order to celebrate the usual festivals. For the two last years of the *Sultán's* reign the Mussulman officers pocketed one half of these collections, and gave the remainder to the *Bráhmans;* so that none of the festivals were celebrated. The people seem much pleased with the restoration of their ceremonies, for which an allowance is made by the collector.

Size of farms, and quantity of stock.

In *Hyder's* government a rich farmer would have, in constant employ, thirty men servants, and fifteen women. He would have also twelve ploughs, forty-eight oxen, one hundred and fifty cows,

and two hundred *Adu*, or sheep and goats. Such a man would cultivate fifty *Bullas* of dry-field, or seventy-five *Cheis* of rice-land. Taking the average excess of the estimated contents of fields, above actual measurement, to be sixty per cent. this would make such a man's farm about three hundred and seventy acres of dry-field, or one hundred and fifty-eight acres of rice-ground. The number of servants seems by this account to be greatly exaggerated, and also the quantity of land that was cultivated by one plough. A farmer is now reckoned rich who has four ploughs with two oxen to each. The generality have at present two ploughs, and cultivate about four *Bullas* of dry-field, or about twenty-five acres, following the same rate of size for the computed *Bullas* as before mentioned. Although these men complain thus of their want of stock, they must not be implicitly credited; for, when afterwards questioned concerning the manner of ploughing, they say, that one man is kept for every plough; that he goes out at sun-rise with two oxen, and ploughs until near noon, when he is allowed an hour for breakfast. He then ploughs, until sun-set, with another team; so that for every plough four oxen must be allowed.

Price of labour.

The hinds, or servants hired for the year by the farmers, are here called *Puddial*, and are on the same footing with the *Batigas* of *Karnáta*. They sometimes bind themselves for a number of years, in which case the master advances money for their marriage expenses, and deducts so much from their monthly pay, until he is repaid. Unless tied down by some stipulation of this nature, they may change their service whenever they please. A servant gets from his master a house, and from fifteen to twenty *Gópály Fanams*, or from 5*s.* to 6*s.* 8*d.*, a year, with a monthly allowance of twenty *Bullas*, or 1,$\frac{[illegible]}{1000}$ bushel of grain. Their wives, when they are able to work, have daily wages. Day-labourers at harvest time, whether men or women, get daily one *Bulla* and a half (rather more than $\frac{1}{8}$ bushel) of the grain called *Cambu*. At weeding the crops,

CHAPTER IX. Oct. 16, 17. the daily wages are one *Bulla* of *Cambu*, or about $\frac{1}{12}$ of a bushel. A man working with a hatchet or pickax gets one *Gópály Fanam* (about 4*d.*) a day; carrying earth in baskets, or the like, he gets $\frac{3}{4}$ of a *Gópály Fanam*, or 3*d.*; and porters, for carrying a load eight *Urnavullies*, or *Malabar* hours' journey, get two *Gópály Fanams*, or nearly 8*d.*

Implements of husbandry. The implements of husbandry are here more miserable, and fewer in number, than those used above the *Ghats.* The farmers of *Chéra* have no carts, no drill plough, no rake, nor hoe drawn by oxen, nor do they use even a bunch of thorns to supply the want of a harrow. Their plough is the same with that used in the vicinity of *Seringapatam*, and they have all the small iron instruments that are in use above the *Ghats*, except the *Ujari*, or weeding-iron. To plough a *Bulla* of dry-field once in one day, six ploughs are required.

Nunjy, or watered-land. The quantity of watered land, or of *Nunjy* as it is here called, being very small, I shall defer taking any account of its cultivation till I go to a place where it is in greater plenty. A fine canal is taken from the *Bhawání* here, by means of a dam; but the ground that it supplies with water is chiefly in the neighbourhood of *Erodu.*

Punjy, or dry-field. The principal cultivation here is that of dry-field, which in this country is called *Punjy.*

Holcus spicatus, or *Cambu.* *Cambu*, or *Holcus spicatus*, is by far the greatest article of culture. It is of two kinds, *Arsi* and *Natu.*

Of the kind called *Arsi Cambu.* The *Arsi Cambu* is cultivated as follows. The field is manured with dung. From about the 16th of April to the 10th of June, it is ploughed four times, and after each ploughing the roots of grass and weeds are removed by the hand. The seed is then sown broad-cast, and covered by the plough. A month afterwards the field is ploughed again; and fifteen days afterwards this is repeated in a cross direction, the corn being then about six inches high. The intention of these two ploughings is to kill superfluous plants. Weeds, as they spring up, are removed by the hand. In three months and a half

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the *Cambu* ripens. The ears or spikes of grain are first cut off, and immediately trodden out by oxen, and the grain cleaned with a fan. If kept in bales, bound up with straw, the grain will preserve for ten years; but that intended for present use is put into pits, where it will not keep more than three months. The straw is afterwards cut down close to the ground, and is used both for thatch and as fodder, for which it is here preferred to the straw of rice; but I observe, that in every district the straw which is most common is preferred for fodder; merely from custom and prejudice, without any actual or rational experiment having been made to ascertain its comparative value. A *Bulla* land requires four *Bullas* of seed; or an acre, 0,08486 decimal parts of a bushel. In a good crop it should produce seventy-two fold, or two hundred and eighty-eight *Bullas*, which is at the rate of $6,\frac{11}{1000}$ bushels an acre. The *Arsi Cambu* thrives best on a light sandy soil, called here *Padagu;* next best on *Shin* and *Eram* soils, or red and black moulds; next best on *Callan Cumy*, or soil containing rounded stones. For this object of culture, soil containing calcarious *Tufa*, or fixed rocks, is very bad. The farmers have no knowledge of the advantages to be derived from a change of crops. They know that some exhaust the ground more than others; but the remedy which they apply is giving a greater quantity of manure to the crop that follows one of an exhausting nature; and they often continue for many years successively to cultivate the same field with the same crop. They are here sensible of the advantage of fallow; but very rich people only have recourse to what is considered as a very expensive mode of improvement; as they must pay the rent for the field, whether they plough it or not. In general, it is thought that the difference in the crop after a fallow does not make up for the loss of a year's rent. *Cambu* is not considered to be an exhausting crop.

Cambu of the kind called *Natu.*

The *Natu Cambu* seed is different from the *Arsi*, and is cultivated in a different manner. The field is manured and then ploughed once between the 10th of April and the 10th of May.

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Between the 10th of June and 10th of July it is ploughed a second time. It is sown with the commencement of the rainy season, which generally happens from the 10th of July to the 10th of September, though sometimes the rains do not commence until between the 10th of September and 10th of October; in which case, the sowing of the *Cambu* must be deferred until the rains begin. The sowing is preceded and followed by a ploughing; after which the crop is managed exactly like the *Arsi Cambu.* It requires five months to ripen, and is equal in quality to the other kind; but from the same quantity of seed, and extent of ground, yields only half of the produce.

Grains sown along with *Cambu. Dolichos Catsjang.*

With both kinds of *Cambu* are sown two kinds of pulse. The seed of *Tata Pyru,* or *Dolichos Catsjang,* is mixed with that of the *Cambu,* to the quantity of half a *Puddy* to the *Bulla* land, and then sown with it. If the *Cambu* does not thrive well, this pulse produces about twelve *Bullas,* or about $\frac{1}{2}$ bushel on the acre. If the *Cambu* is a good crop, the quantity of pulse will be about one fourth part less.

Dolichos Lablab.

Muchu Cotay, or *Dolichos Lablab,* is also sown with *Cambu.* On the day after sowing the *Cambu,* furrows are drawn through the field, at the distance of six cubits, and about two *Bullas* of the *Muchu Cotay* seed is dropt into the furrows of one *Bulla* land. If the *Cambu* grows properly, this pulse will only produce about twelve *Bullas;* but, if the crop of *Cambu* be bad, that of the pulse will amount to twenty *Bullas,* or to less than $\frac{1}{2}$ bushel on the acre.

Sesamum.

Sesamum is sometimes sown mixed with *Cambu;* but in such small quantities, as not to be an object worth particular consideration.

Dolichos biflorus, or *Colu.*

Next to *Cambu* and its concomitants, the most considerable crop here is *Colu, Horse-gram,* or *Dolichos biflorus.* From about the middle of September to that of October, plough once, sow the seed broad-cast, and cover it with the plough. It requires no manure; but, if some dung be given, the crop will be greatly improved. It ripens in five months; a *Bulla* land requires six *Bullas* of seed, and

in a good crop produces ninety-six *Bullas*. The seed for an acre, according to this, will be $\frac{1}{4}$ bushel, and the produce two bushels. CHAPTER IX

Oct. 16, 17. Cotton, or *Pirati*.

The next most considerable crop is cotton. It is of two kinds, *Upum Pirati*, and *Nadum Pirati*.

Nadum Pirati.

The seed of the *Nadum Pirati*, to the quantity of six *Bullas* for the *Bulla* land, is mixed with the usual quantity of *Cambu*, *Colu*, or *Sholum*, and sown broad-cast, without any farther preparation than would be necessary for the single crop. After the crop of grain has been cut down, the field is ploughed four times between the plants. The intervals between these ploughings are from ten days to a month, according as rain happens to come; for each ploughing must be performed immediately after a copious rain. The cotton next year produces a small crop in the month which commences about the 12th of July; and a larger crop in that which commences about the 10th of January. On the third year the field is ploughed again in July, and gives then a small crop. It is ploughed again in the month commencing about the middle of November, and gives a good crop in January. The field is then manured, and cultivated for two years with grain. With the third crop the cotton seed may be again sown. The crop of grain accompanying the cotton on the first year is as good as that sown by itself. Some poor people sow a crop of *Cambu* among the growing cotton plants, in the second and third years; but it produces very little. The quality of the July and January crops of the same year is equal; but the crops of the second year are superior, both in quantity and quality, to those of the third. The cotton, as sold by the farmers, is mixed with the seed, and, according to the demand, varies from two to four *Gópály Fanams* a *Tucu*, for that of the first two crops. The produce of the two crops of the third year sells for about $\frac{1}{4}$ of a *Fanam* lower than that of the second year.

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Produce of a *Bulla* land.

	Gópály Fanams.
1st year, 288 *Bullas* of *Cambu*, average value - -	$57\frac{1}{4}$
2d year, July crop seven *Tucus* of cotton, January crop 8 *Tucus*	45
3d year, ditto - two ditto - - - - - ditto two ditto	12
Gópály Fanams	$114\frac{1}{4}$

This, divided by three for the years employed, would give only $38\frac{1}{4}$ *Gópály Fanams* for the yearly gross produce of a *Bulla* land of the worst quality, or 3*s.* $2\frac{1}{2}$*d.* an acre.

Cotton called *Upum Pirati.*

The *Upum* cotton is raised on *Erum bumy*, or black mould; and in this kind of cultivation the following succession of crops is taken: first year cotton; second year cotton; third year *Cambu (Holcus spicatus)*; fourth year *Sholum (Holcus sorghum)*. The cotton ought to have dung, but this is sometimes omitted. The manure is first put on, and then the field is ploughed four times, from about the middle of August to that of October. With the first rain, in the following month, the cotton-seed is sown broad-cast, and ploughed down. From the 12th of December to the 12th of January, the weeds are removed by a small hoe named *Cotu*. The crop is collected from about the beginning of April until the 10th of May. If there come rain afterwards, there is from the middle of July to that of August another small crop, and then the field is ploughed up again for the second year's crop, which is managed exactly like the first. The two crops of cotton are nearly equal in quantity and quality. The *Upum* cotton sells for nearly the same price as the *Nadum*, although the wool is not of so good a quality; but then its seeds bear a smaller proportion to the wool, than those of the *Nadum* cotton do. A *Bulla* of land requires eight *Bullas* of seed, and in favourable seasons produces fifteen *Tucus* in April, and five *Tucus* in July. The merchants sell it, with the seed, to the women who spin. A woman takes two days to clean one *Tucu* of cotton, and to fit it for spinning.

Near *Bhawáni-kudal* these are by far the most considerable crops. But several other articles are cultivated.

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Panicum miliare E. M. or *Shamay.*

Shamay, or *Panicum miliare* E. M. is cultivated as follows. The field is manured, and then ploughed from two to four times in the two months following the 12th of July. In the beginning of September, sow broad-cast, and plough in the seed. The weeds must be removed with a small hoe in the end of October, and again about the end of November; and in five months the crop ripens. The proper soil for this is a red mould called *Shin bumy;* nor does it here thrive on the sandy soil that is generally used for it above the *Ghats*. It does not exhaust the ground, and its straw is reckoned a better fodder than that of *Cambu*. A *Bulla* land requires six *Bullas* of seed, and produces three *Podis*, or two hundred and eighty-eight *Bullas*. The acre, therefore, requires 0,12729 bushel of seed, and produces $6\frac{11}{100}$ bushels.

Paspalum frumentaceum.

Varagu, or the *Paspalum frumentaceum* of Dr. Roxburgh's MSS. and probably the *Paspalum kora* of Willdenow, is cultivated as follows. The field, having been previously manured, is ploughed twice or thrice, from the 10th of April to the 10th of June. The seed is sown broad-cast about the last mentioned time, and then covered by a ploughing. Next day the *Tovary* seed *(Cytisus Cajan)* is drilled in furrows six cubits distant. A month afterwards the plants will be a span high, and the superfluous ones must be destroyed by ploughing the field. Fifteen days afterwards this must be ploughed again in a direction crossing the former at right angles. The *Varagu* requires seven months to ripen, and the straw is bad fodder. A *Bulla* land requires for seed six *Bullas* of *Varagu*, and two of *Tovary*. In a good crop it produces one hundred and ninety-two *Bullas* of the former, and fifty of the latter. An acre, therefore, requires for seed $\frac{1}{4}$ bushel of *Varagu*, and $\frac{1}{12}$ bushel of *Tovary*, and produces $4\frac{8}{10}$ bushels of the former, and $1\frac{1}{4}$ of the latter.

Paspalum pilosum.

Pani Varagu, or the *Paspalum pilosum* of Dr. Roxburgh's MSS. is cultivated as follows. Having manured the field from about the

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middle of August to the middle of October, plough it immediately twice or thrice; sow the seed broad-cast, and cover it with another ploughing. At the end of a month, weed with the small hoe called *Cotu.* It ripens in sixty days. The straw is very good for cattle. It is, however, sown in such small quantities, that no estimate can be formed of the produce of a *Bulla* land.

Sesamum.

Here are three kinds of *Ellu,* or *Sesamum,* that are cultivated; and the seeds are always kept separate, and cultivated at different seasons.

Car' Ellu.

The *Car' Ellu* has a black seed, and is sown with *Cambu (Holcus spicatus),* as I have already mentioned.

Cur' Ellu.

The *Cur' Ellu* has red seed. Between the 10th of April and 10th of May the ground is ploughed once, sown broad-cast, and then ploughed again. At the end of a month the weeds are pulled up by the hand. In three months the seed is ripe. A *Bulla* land requires $1\frac{1}{2}$ *Bulla* of seed, and in a good crop produces ninety-six *Bullas,* or one *Podi.* An acre, therefore, requires $\frac{1}{16}$ bushel of seed, and produces two bushels.

Vullay Ellu.

The *Vullay Ellu* has white seed. The field for this must be manured, and ploughed once or twice in August, or the beginning of September. About the middle of September the seed is sown, and covered by the plough. At the end of a month the weeds must be removed by the hand or hoe. The quantity sown on a *Bulla* is the same as of *Car' Ellu.* It ripens in four months, and a *Bulla* land in a good crop produces sixty-four *Bullas;* or an acre one bushel and a half. The soil proper for *Ellu* is *Shin Bumy,* or red mould; but a sandy soil also answers. This crop is reckoned very exhausting.

Holcus sorghum.

Sholum, or *Holcus sorghum,* is cultivated as follows. Having manured the field, it must be ploughed twice or thrice between the 10th of April and 12th of May, and between that time and the 10th of June it is sown broad-cast, and ploughed again. Next day drills are made for *Avaray (Dolichos Lablab)* and *Tovary (Cytisus Cajan);* and some seeds of a cucurbitaceous fruit, called *Shucum Velari Cai,*

are often intermixed. At the end of a month the field is ploughed, and the weeds removed by the hand. In six months it ripens. A *Bulla* land, for seed, requires four *Bullas* of *Sholum*, and, besides the pulse, produces in a good crop two *Podis* of *Sholum*, or one hundred and ninety-two *Bullas*, which is at the rate of $4\frac{8}{10}$ bushels on the acre. *Erum* and *Shin bumies*, or black and red moulds, are equally well fitted for this grain. The straw is reckoned better fodder than that of *Cambu*.

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Grains cultivated in small quantities.

Tenay, or *Panicum italicum*; *Wulindu*, or *Phaseolus minimoo* Roxburgh's MSS.; *Pacha Pyru*, or *Phaseolus Mungo*; and *Cotay Mutu*, or *Ricinus Palma Christi*, are also cultivated here; but in such very small quantities as to render them of no importance.

I suspect that the produce of these crops is under-rated by the persons who gave me this account.

Forests and wastes.

The principal native officer here says, that in Major Macleod's district there is no forest-renter; and that any person who pleases may cut *Bamboos*, or forest trees. Nor is any rent exacted from those who feed cattle in waste lands, except where the pasture is very good; and there, for an exclusive privilege of keeping their herds, some people pay a trifle. The honey is collected by the farmers of each village, who keep the wax for their trouble, and ought to give the honey to the government. That which is produced on the high hills is rented by the tribe called *Soligas*. In this district there is no *Lac*.

Sandal wood.

At *Baraguru* and *Punachi* near *Alumbady*, and in one place near *Gujul-hatty*, sandal-wood is procured. People are hired by the collector to bring it here. It is cut, on the spot, into billets from one cubit to one and a half in length, and the white wood is immediately removed. The rough billets are then sent to *Bhawáni-kudal*, and have as yet been all kept there just as they were brought, without being sorted or polished. It is reckoned inferior in quality to that which comes from the western part of the *Mysore Rájá's* dominions; but none has as yet been sold. None of it is stolen, and

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care is taken to cut that only which is ripe; so that there will be a certain quantity procured annually. My informant thinks that this will amount to about four hundred loads, each weighing eight *Maunds* of forty *Seers* of twenty-four *Dudus*; or in all about six hundred and ninety-three hundred weight.

Oct. 18. Appearance of the country.

18th *October*.—I went seven Indian hours' journey along the northern bank of the *Bhawání*, to *Apogodal*. The country through which I passed is level, and well peopled; and the quantity of waste land is not considerable: it indeed seems too small to be able to afford pasture for the cattle. I saw eight or ten acres only of rice-ground, and one half of that was waste. The only fences were a few hedges made of dry bushes. The cultivation is extremely slovenly, more so even than in any place above the *Ghats*. It is said, that at any distance from the river one half of the fields is waste. Near the hills is *Andeuru*, the chief place of a large district comprehending *Káveri-pura* and *Bhawání-kudal*. In its vicinity are said to be seven reservoirs in repair, which supply with water a considerable quantity of rice-ground.

Apogodal.

Apogodal contains a temple of *Iswara*, and about one hundred houses, but has not a single shop. *Bazars*, or shops, indeed, seem to be uncommon in this country; and the inhabitants supply themselves with necessaries at fairs, called here *Shanday*, and which resemble the *Hauts* and *Gunges* of Bengal. *Apogodal* was sold by *Hyder* to a banker named *Valmun Doss*, who gave sixty thousand *Pagodas* on condition of holding it as a *Jaghire*. It then contained between three and four hundred houses. The head man of the village says, that five years after this sale, and about thirty years ago, the *Marattahs* invaded the country, and laid every thing waste; since which it has never recovered its former prosperity. He remembers no other invasion; I therefore suspect that the *Marattahs* he speaks of was the army of General Meadows; all matter of history being in a sad confusion in the mind of a *Hindu*. He says, that after the invasion a famine followed, which destroyed

a great part of the inhabitants. The epidemic distemper prevailed among their cattle last year, and carried off about three-eighths of their stock; but they met not with the smallest disturbance from the war. CHAPTER IX. Oct. 18.

When *Hyder* sold this place to *Valmun Doss*, a small land measure was introduced, and a *Bulla* land was called one and a quarter. *Tippoo* afterwards seized on this man's property, which was then measured, and what his villainous officers called a *Bulla* is now found to contain twice that extent. I measured a *Bulla* here, and found it agreeable to the standard at *Bhawání-kudal*. It was of a very poor soil, fit for *Cambu*, and paid ten *Fanams* rent, or at the rate of 18$\frac{3}{4}$ *d.* an acre. The best dry field here lets at thirty-five *Canter'-raya Fanams*, and the worst at five, for the *Bulla*. The acre therefore lets at from 6*s.* 6*d.* to nearly 9$\frac{1}{2}$ *d.* Rent.

Although the farmers of *Bhawání-kudal* omitted it in their account of the produce of the country, I found that on the banks of the river a great deal of *Shanapu*, or *Crotolaria juncea*, is cultivated. It is here raised by the farmers, and, when fit for being put into the water, is sold to the people called *Telinga Chitties*, who make the hemp, and work it up into *Goni*, or sack-cloth. The field is dunged, and ploughed twice, between the twelfth of July and the same day of August. At any time in the course of the two following months, after a rain, the seed is sown broad-cast, and covered by the plough. At the same time any bushes that have not been ploughed down must be removed by the hand. In order to prevent the plant from putting out side branches, the seed is sown very thick; ninety-six *Bullas* are therefore required for a *Bulla* land, or rather more than two bushels for an acre. It is sold by the thousand handfuls, or as much as a man can grasp between his finger and thumb. Tall plants sell at two *Rupees* for the thousand handfuls, short ones for one *Rupee* and an half. It thrives best on a poor sandy soil, but is also cultivated on black and red moulds. It is reckoned to improve the soil for every other kind of crop; but it cannot be cultivated on *Crotolaria juncea.*

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Oct. 18. *Panicum italicum*, or *Tenay*.

the same ground for two successive years. Cattle will eat the seed; but when given to cows with calf, it is said to produce abortion.

Near *Apogodal*, *Tenay*, or the *Panicum italicum*, is raised in greater quantities than at *Bahwáni-kudal*. It is cultivated exactly like the *Arsi Cambu*, and ripens in three months. Its straw is worse fodder than that of *Cambu*. A *Bulla* land requires eight *Bullas* of seed, and in a good crop produces three *Podis*, or two hundred and eighty-eight *Bullas*: an acre, therefore, requires 1,$\frac{11}{1000}$ gallon of seed, and produces 6, $\frac{11}{100}$ bushels.

Produce of the most common crops.

The principal dry crops here are explained in the following table:

Kinds.	Seed.		Produce.	
	Per *Bulla*.	Per Acre.	Per *Bulla*.	Per Acre.
	Bullas.	Gallons. dec.	*Podis*.	Bushels. dec.
Cambu - - - - - - - -	6	1,018	3	6,11
Colu - - - - - - - - -	10	1,697	2	4,073
Sholum - - - - - - - -	8	1,358	$2\frac{1}{2}$	5,092
Varagu - - - - - - -	8	1,358	4	8,147
Shamay - - - - - - -	8	1,358	4	8,147

Oct. 19. Bhawání river.

19th *October*.—I went a very long stage, called nine hours journey, to *Nala-ráyana-pallyam*, a small village on the bank of the river, which at all seasons contains running water, and has here many pools, which are always deep, and harbour crocodiles.

Appearance of the country.

More than three-fourths of the country through which I travelled seemed to be waste. I passed a fine reservoir full of water. In the ground which it irrigates, cultivation was just commencing; for the whole had been waste last year. Several clear streams run down from the hills to the *Bhawání*. The soil is sandy, and contains many loose stones and rocks; but traces are to be seen of the whole having been formerly cultivated.

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Oct. 19. Cultivation of watered land.

There being much rice cultivated near this, I assembled the most intelligent farmers, and took from them the following account of the cultivation of *Nunjy*, or watered land. No rice can be made in this country by the rain water alone; the whole must be artificially supplied, either by canals or by reservoirs. A dam on the *Bhawání*, three *Malabar* hours' journey below *Satí-mangala*, sends off a canal to each side of the river. That which goes on the south side, and passes through the district called *Gópála Chitty Pallyam*, waters a great extent of ground. This one, that comes on the north side through *Satí-mangala*, waters eleven hundred *Candacas* of rice-land, and one hundred and thirty-two *Candacas* of gardens. Two hundred of these *Candacas* are at present unoccupied; and a moderate repair given to the *Dam*, would enable it to water in all thirteen hundred and fifty *Candacas* of rice-land. The *Candaca* here is said to be as much ground as used to be sown with eighty *Seers* of sprouted seed, and to extend from $1\frac{1}{4}$ to $1\frac{1}{2}$ of the new *Cheis*. It ought, therefore, to be on an average 75,600 square feet. The land watered by canals gives only one crop in the year, but that never fails. A little land watered from reservoirs, when the season is favourable, gives annually two crops; but as the supply in the tank often fails, owing to a want of rain, the rent of the two kinds of ground is nearly the same.

Rent.

Thirty-years ago the dry-field was cultivated by one set of men, and the watered lands by another, who paid to government two-thirds of the produce. This was altered by *Hyder*, who introduced a fixed rent in money, even for watered land. On this many of the old farmers gave up their lands, which were forced on those who remained, and on those who formerly cultivated only dry grains. *Tippoo* raised the rents from *Vir'-Ráya Fanams*, in which the accompts had formerly been kept, to *Sultany Fanams*, of which one hundred are equal to about one hundred and twenty-five of the former. The whole of the old cultivators of the watered lands, who were mostly *Bráhmans*, now disappeared, and the lands were

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forced upon the cultivators of dry-field, who say that they have thereby been reduced to great poverty. Having a high rent to pay, they have been compelled to betake themselves to greater industry than formerly was practised. They have given up the sprouted-seed cultivation, which required little trouble; and, except on a small quantity of poor low-rented land, have adopted the more laborious culture by transplantation, owing to which the produce of the land has been almost doubled. Those farmers who still cultivate nothing but dry-field allege that they are worse off than those who have taken rice-grounds, as, owing to a regular supply of water from the river, the crop on these never fails. No one, however, could expect, that any of these poor people should confess that they were satisfied with their lot. A sandy loam is here reckoned the most favourable for rice, and, according to its four qualities, lets for 230, 200, 190, and 180 *Sultany Fanams* a *Candaca;* or for *4l. 2s. 8½d., 3l. 11s. 11d. 3l. 8s. 4d.* and *3l. 4s. 8¼d.* an acre. Black and red clay lands let, according to their quality, for 180, 160, 150, and 140 *Sultany Fanams* a *Candaca;* or *3l. 4s. 8¼d. 2l. 17s. 6½d. 2l. 13s. 11¼d.* and *2l. 10s. 4d.* an acre. Stony land lets for 140, 130, 120, and 100 *Sultany Fanams* a *Candaca;* or for *2l. 10s. 4d. 2l. 6s. 9d. 2l. 3s. 2¾d.* and *1l. 15s. 11½d.* an acre. A still inferior soil lets for 100, 80, 60, and 50 *Sultany Fanams a Candaca;* or *1l. 15s. 11½d. 1l. 8s. 9d¼. 1l. 1s. 7¼d.* and *17s. 11¼d.* an acre. These rents seemed so high in proportion to the extent of ground, that at the time I suspected the farmers of alleging the dimensions of the *Candaca* to be smaller than they really are; but I have now reason to think that the statements given here are not materially erroneous.

Bad practices of the collectors in *Tippoo's* government.

In *Tippoo's* government the farmers were ordered to pay for the whole lands, whether they were cultivated or not: but a small part only reached the treasury. In order to prevent the people from complaining, small balances were allowed to remain in their hands, while in the public accompts a very large proportion of the nominal

revenue was stated to be outstanding, owing to bad seasons, the desolations of war, or other pretences; and, whatever was not allowed to remain with the farmers was embezzled by the officers of government. These, however, did not enjoy in quiet their ill-gotten wealth. They were in constant terror; and, in order to prevent information, were obliged to give very high bribes to *Meer Saduc*, and to officers who were sent round to inspect the state of the country. The illicit gains of even this description of officers did not enrich them. They were all *Bráhmans*, and spent the whole of their money on dancing-girls, and in what they called charity, that is, money given to men reputed holy. At present, no money is asked for waste lands; but the farmers must pay the full rent for what they cultivate, and all those of a village are bound for the rent of each individual. To this they seem to have no objection, and say, that they never scruple receiving any new cultivator on account of his poverty.

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Division of crops.

The farmers are very anxious to be put on the old footing of paying the two-thirds of the produce. In order to procure this indulgence, they say that they would undertake to cultivate every spot of rice-land; but confess that they would return to their old habits of indolence, and cultivate only the sprouted seed, by which not only the government would lose much, but the produce of the country would be diminished by at least one half. From the statement given by these men of the produce of their lands, it does not appear that at present they pay more than two-thirds of the produce; their great object, therefore, in the wished-for change is, to have an opportunity of defrauding government in the division of the crops.

Cultivation of rice.

Transplanted rice is here called *Nadavu*, and sprouted-seed is called *Cai Varupu*. The kinds raised, with several particulars attending their cultivation, will be seen in the accompanying table. The produce stated in this is that of the best soils, except in the case of the kind called *Caru*, which now is raised only on the very

CHAPTER IX. Oct. 19. lowest rented fields. The first two kinds in the table are those by far most commonly cultivated; the others, ripening in five months, are sown chiefly on rich lands, that give an after-crop of *Ellu (Sesamum)* or of *Shanapu (Frotalaria juncea)*, which compensates the deficiency of their produce. All the kinds keep equally well, and the rough rice will keep four years in store-houses. Previous to being put up in these, it must be carefully dried in the sun for three days; and the floors, walls, and roof of the house ought to be well lined with straw. It ought not to be opened again until wanted for consumption.

Table explaining the cultivation of Rice at *Nala-ráyana-pallyam*, in the *Coimbetore* Province.

Kinds.	Crop for which each is fitted.	Months required to ripen.	Quality.	Average Value of one Candaca in *Vir'-Ráya Fanams*.	Average Value of one Bushel.	Produce On a *Candaca-land.* Quantity.	Produce On a *Candaca-land.* Value	Produce On an Acre. Quantity.	Produce On an Acre. Value.
					s. d dec.	*Candaca.*	*Vir'-Ráya Fan.*	Bushels.	£. s. d. £. s. d.
Pishanum - - -	Transplanted	7	Coarse	8	1 5,16	60 to 55	480 to 440	96 to 88	6 17 3½ to 6 5 10½
Jeda Mulligy - -	ditto	6	ditto	8	1 5,16	60 to 55	480 to 440	96 to 88	6 17 3½ to 6 5 10½
Deva Ráya Sumbava	ditto	5½	Small	8½	1 6,24	50 to 45	425 to 382½	80 to 72	6 1 7 to 5 9 3
Gundu Mulligy -	ditto	5	Round & small	8½	1 6,24	50 to 45	425 to 382½	80 to 72	6 1 7 to 5 9 3
Shitta Vogum - -	ditto	5	Small	8½	1 6,24	35 to 30	298 to 255	56 to 48	4 5 1½ to 3 12 11½
Caru - - - -	Sprouted seed	3½	Coarse	7	1 3,02	30 to 20	210 to 140	48 to 32	3 0 1½ to 2 0 0½

Nadavu, or transplanted crop.

The following is the manner of cultivating the *Nadavu* crop. In the month following the 12th of July, the ground for raising the seedlings is inundated, and ploughed twice. The labourers then tread into the mud a quantity of the leaves of the following plants. *Colinji*, or *Galega purpurea*; *Catcotay*, or *Jatropha Curcas*; and *Eracyellay*, or *Asclepias gigantea*. The seed, which is preserved in *Cotays*, or straw bags, is then put with its covering into water,

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where it soaks a whole night. Next day it is kept in the wet bag, and on the third day it is found ready for sowing, having pushed forth small sprouts. The field is sown on the third day after the leaves have been put in, being covered to the depth of one inch with water. The seed is sown broad-cast, and excessively thick, or at the rate of forty-eight *Candacas* of seed for one *Candaca* of land. This serves to transplant into thirty-two *Candacas;* so that one *Candaca* and a half of seed are required for a *Candaca* of land, or $2\frac{4}{15}$ bushels for an acre. On the day after sowing the seed the field is drained. Every other day, for four times, it is covered in the morning with water, which is let off again at night: afterwards it is kept constantly inundated, deeper and deeper as the plants grow. The proper time for transplanting is between the thirtieth and fortieth days; but poor people are often compelled, by want, to protract the operation until between the fortieth and fiftieth days, which injures their crops. In a few days after the seed is sown, the fields in which the seedlings are to ripen are inundated for three or four hours; then ploughed once; then inundated for eight days; then ploughed a second time, having been previously drained; and at similar intervals they must get a third and fourth ploughing, with intervening inundations: so that the fourth ploughing must be on the twenty-fourth day. The field is then kept inundated until the rice is going to be transplanted; and, superfluous water having been let off, the mud is then ploughed a fifth time, and smoothed with a plank (*Parumbu*) drawn by oxen. The seedlings are transplanted into it in the course of that and the following day. The seedlings, after being plucked, may be preserved in water five days before they are planted. After having been transplanted, they are allowed water, for the first time, on the fifth day. This water is drained as soon as the field has been filled; and for the next eight days it is allowed to run in at one side of the field, and out at another. The field is kept afterwards constantly inundated, except on the day when it is to be weeded, which is the

CHAPTER IX. Oct. 19. fortieth after it has been transplanted. When the ears are full and from their weight begin to incline, the water is let off in order to ripen the grain. The rice is cut down close by the ground, and immediately afterwards is put up into stacks, without having been bound in sheaves. Next day it is threshed by striking handfuls of it against the ground. The straw is then exposed to the sun for three days, and then trodden by oxen, in order to procure the remaining grain. That intended for seed is exposed four or five days to the sun, and is then tied carefully up in bags of straw. A plough, with one man and four oxen, is said to be able to cultivate only one *Candaca* of land; and to the amount of five *Candacas* of rough rice is required for extra-labour at seed-time and harvest, and for other small charges.

The *Cai Varapu*, or sprouted seed cultivation, is as follows. In the month after the 13th of July, the field is watered, and then ploughed. Afterwards it has three other ploughings in the course of twenty-four days, and in the intervals is inundated. It is then watered for four days, ploughed a fifth time, and smoothed with the plank drawn by oxen. The seed is prepared in the same manner as for the other mode of cultivation, and is sown broad-cast, at the rate of one *Candaca* to one *Candaca*-land, or of $1,\frac{1}{10}$ bushel to an acre. For the first three days it has no water, after which once in three days, for four times, it is watered an hour. On the thirtieth and forty-fifth days the weeds are removed, the field having at both times been drained. The crop is afterwards managed exactly as in the transplanted cultivation. It is allowed no manure.

Second crop. Upon some of the best land a crop of *Ellu*, or *Shanapu*, may be taken in the same year with a crop of rice: the former is thought to exhaust the soil, the latter does no harm.

Sesamum, called *Car' Ellu*. For *Car' Ellu* the ground is ploughed between the 10th of March and the 11th of April. It is then sown broad-cast, and the seed is covered by a second ploughing. In three months it ripens without farther trouble, and is followed by a crop of any kind of rice. On

a *Candaca-land* are sown five *Seers*, or two *Bullas* of seed, and the produce is four *Candacas*. An acre, therefore, sows $\frac{91861}{10000}$ of a gallon, and produces $11,\frac{92}{100}$ bushels. This is of an inferior quality to the *Ellu*, or *Sesamum*, that is produced on dry-field. Oct. 19.

Crotolarea juncea, or *Shanapu*.

The *Shanapu*, or *Crotolaria*, is cultivated on fields that have produced a crop of rice, between the 12th of January and the 12th of February. In the following month, water the field, sow the seed, and cover it with the plough. Once a month it requires to be watered, and it takes four months to ripen. This is more valuable than the hemp cultivated on dry-field, and sells for about twenty *Vir'-Raya Fanams* for the thousand bundles. A *Candaca*-land requires three *Candacas* seed, and produces four thousand bundles. An acre, therefore, requires $4,\frac{3}{10}$ bushels of seed, and its produce is worth about 1*l.* 2*s.* 10½*d.*

Oct. 20. Irrigation.

20th *October*.—I went six *Malabar* hours' journey to *Anacodavery*, the place where the canals are taken from the river *Bhawání* to water the rice grounds which I described yesterday. The dam by which the water is forced into these canals is said to have been built about one hundred and twenty years ago, by *Nunjay Rájá*, father of *Canter Ráya* of *Mysore*. It is a good work; but in the reign of the *Sultan* it had been nearly choaked up, and very little of the rice ground was then cultivated. It has lately been cleared, and, as I yesterday stated, the greater part of the fields has been brought into cultivation.

Face of the country, and desolation of war.

In the immediate neighbourhood of *Codavery*, most of the fields are not watered land, and not above a sixth part of them are at present occupied. The soil in some places is very good; and the remains of many hedges, and traces of cultivation, show not only that the whole country has once been cultivated, but also that the mode of cultivation was superior to any now practised. The devastation has been occasioned by the invasion of General Meadows. There was then no want of rain; but for two years cultivation was

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at a stop; and whatever grain was in the country was equally swept away by the defending and invading armies. The inhabitants retired to the hills, to procure the small quantity of grain produced in places inaccessible to the military; but there, partly from hunger, and partly from disease, great numbers of them died. On the face of the hills is much of the *Cotu Cadu* cultivation, which is carried on partly by poor people living on the low ground, and partly by the *Soligaru*, who live on the mountains, and who have already been described.

Guttimodaly. The tradition here is, that there were eight or ten *Guttimodalies*, to whom in succession this country belonged. About two hundred years ago they were deprived of it by the *Mysore* family. *Chica Déva Ráya Wodear* was the fifth in descent from the conqueror.

Oppression under *Tippoo*. The farmers here say, that they now pay the same rent that they did in *Tippoo's* time, which is a *Sultany Fanam* for every *Vir'-Ráya Fanam* that they paid to *Hyder*. The revenue officers under the late government, although they in general left outstanding balances in the hands of the farmers, in order to prevent them from complaining, extorted every thing that they had from them, by demanding payment of their rents twice, or even oftener, in the year: the receipts granted for the former payments were always discovered to be forgeries. The people sent to inspect the state of the province were instantly bribed. In carrying on public works, it was the *Sultan's* orders, that every person should be fully paid for his labour. The wages were regularly charged by the superintendants, who gave nothing to the labourers, but just so much grain as would keep them in existence. Access to the *Sultan* was very seldom procurable by the people who suffered by such means; but some few are said to have reached the presence, where they were kindly received, and sent to *Meer Saduc* for redress. They were instantly shut up in some dungeon, while the minister reported to his master that the delinquent had been

punished; as of course he was, by being obliged to part with all that he had procured by his embezzlements. No man had the courage to complain of *Meer Saduc*.

CHAPTER IX.

Oct. 21.

Sati-mangalam.

21st *October*.—I went three *Malabar* hours' journey to *Sati-mangalam*, which in the *Sanskrit* language signifies *truly good*. The fort is large, and constructed of uncut stone, and has a garrison, but contains very few houses. It is said to have been built, about two hundred years ago, by *Trimula Náyaka*, a relation of the *Rája* of *Madura*, who governed this part of the country for his kinsman. The merchants, who in general are the best-informed *Hindus* on historical subjects, say, that fifty years afterwards it became subject to *Cantirava Nursa Rája* of *Mysore*. From this long dependence on princes of *Karnáta*, the language of that country is now the most prevalent, although that of the *Tamuls* is the original dialect of the place, which is a part of *Chéra Désam*. It is said to have formerly depended on *Pandia*, which formed the continental possessions of *Rávana* king of *Lanca*, or *Ceylon*.

Indecency of the Hindu worship.

The *Petta*, or town of *Sati-mangalam*, is scattered about the plain at some distance from the fort, and in *Hyder's* reign contained seven hundred and eighty-four houses. These are now reduced to five hundred and thirty-six. Here is a considerable temple dedicated to *Vishnu*. The *Rath* or chariot belonging to it is very large, and richly carved. The figures on it, representing the amours of that god in the form of *Krishna*, are the most indecent that I have ever seen.

Air.

The country is at present very unhealthy; and ever since we came through the *Káverí-pura* pass, some of my people have been daily seized with fevers. The days are intensely hot, with occasionally very heavy rains. The nights are tolerably cool; to the natives they appear cold.

Appearance of the country.

The country through which I passed to-day is much in the same state with that through which I came yesterday. Above *Codavery* there are no canals; but there are several reservoirs for watering

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Candaca-land, and doubts respecting the statements at *Nala-ráyana-pallyam.*

the ground. At *Sati-mangalam* there were four large ones, each of which watered one hundred and fifty *Candacas* of land, or upwards. One of these is half repaired, the others are totally ruinous. The *Candaca* here also contains eighty *Seers*, so that it ought to sow the same extent of land as at *Nala-ráyana-pallyam*; but the officers here say, that the *Candacas* of land contain from two and a half to four *Cheis*, or at a medium three and a quarter, which is at least double the size allowed to them by the farmers of that place. If any person be inclined to prefer the account of the officers, the quantity of seed, rent, and produce of an acre of the watered lands at *Nala-ráyana-pallyam*, as stated from the accounts given by the farmers there, would require to be reduced at least one half. These officers of revenue say also, that the farmers at *Anacodavery*, who stated that they now paid the same rent which they did in the reign of *Tippoo*, are liars; and that, in fact, the rents are now lower than in *Hyder's* government, whose assessments were seldom, if ever, exorbitant.

Iron ore.

In all the rivulets of this part of the country, iron ore, in form of black sand, is common; and at a place seven *Malabar* hours' journey north-east from hence it is smelted.

Forests.

I remained at *Sati-mangalam* two days, with a view chiefly of procuring specimens of the timber trees that grow on the neighbouring *Ghats*. In this, however, I failed, through the obstinacy or stupidity of the *Serishtadar*. In the forests of these *Ghats* are said to be the following kinds of trees, that produce good timber:

Moluga.
Velingy.
Calicotay Tayca.
Cad' Jehay.
Vaynga.
Chipily.
Vaycali Andersonia altissima Roxb: MSS.

Commerce.

The people here allege, that the rich merchants in this country

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never live in towns, but stay in the villages, and collect goods which they carry to *Seringapatam* by the *Gujul-hatty* pass, and go thither either this way, or by the *Budigupa* custom-house, two miles from *Dan' Nayakana Cotay*. The goods that are sent up are all the kinds of cotton cloths made in this neighbourhood, *Sesamum* and castor oils, *Ghee*, or boiled butter, tobacco, sackcloth, or *Goni*, sheep, and goats: all the returns are in cash.

Manufactures.

The weavers in this district, including fifty *Goni-makers*, employ eight hundred looms. The cotton wool used by them is entirely the produce of the country; all the silk used for borders is brought from *Saliem*. The cloth is either used in the neighbourhood, or sent to *Seringapatam*. About five months ago the Commercial Resident at *Saliem* came round the villages in this vicinity, and from among the weavers in each appointed a head-man to make advances to the others. He advances to each family so much money as it will undertake to work for in one month. He is answerable for balances, and on each piece gets a commission of one *Canter'-Ráya Fanam*, or about $7\frac{1}{2}d.$ The carriage is paid by the Commercial Resident, and he bleaches the cloth at *Saliem*. The only cloth that he advances for, is a coarse stuff called *Shalambru*. It resembles the *Baftas* of Bengal, and is thirty-six cubits long, by two and a quarter broad. It is divided into three degrees of fineness; the first contains nine *Calls*, and sells for four *Rupees* and a half, which are worth $9s.\ 1\frac{1}{2}d.$; the second contains eight *Calls*, and sells for four *Rupees*, or $8s.\ 1\frac{1}{4}d.$; and the third contains seven *Calls*, and sells for three *Rupees* and a half, or $7s.\ \frac{11}{100}d.$ The *Call* contains 2 *punjas*, and the *punja* 62 threads. This cloth seems to me to be cheap, and had never been made here until the commercial resident came.

Company's investment.

Native dealers.

Native merchants frequently make advances for the cloth intended for country use. These persons endeavour to keep the weavers constantly in their debt; for, so long as that is the case, they can work for no other merchant, and must give their goods

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at a low rate. When a merchant wishes to engage a new weaver, he must advance the sum owing to the former employer. With this the weaver buys goods to fulfil his old contract; but then he becomes equally bound to the person who has advanced the money. A few weavers are rich enough to be able to make cloth on their own account, and of consequence sell it to the best advantage. The cloth for the use of the natives is always sold unbleached.

Weavers, and different kinds of goods.

The weavers in this district are of two kinds, *Coicular*, and *Jadar*; but both make the same kinds of cloth, which are as follow:

Shillas, or thin white muslins, 22 cubits long, and 2½ or 2¼ broad. They are very coarse, and are sometimes striped, and then are called *Duputtas*. They sell for from 7 to 20 *Vir'-Ráya Fanams*, or from 3*s*. 5¾*d*. to 9*s*. 11*d*. a piece. If commissioned, the pieces are sometimes made of double length.

Shoman is the same kind of cloth with silk borders. The pieces are from 22 to 24 cubits long, from 2½ to 3 cubits broad, and sell for from 8 to 40 *Vir'-Ráya Fanams*, or from 3*s*. 11½*d*. to 19*s*. 10¼*d*.

Shaylay is a thicker cotton cloth with red cotton borders. The pieces are 19 cubits long, from 2½ to 2¼ broad, and sell for from 6 to 20 *Vir'-Ráya Fanams*, or from 2*s*. 11¼*d*. to 9*s*. 11*d*.

Romála, or large handkerchiefs for tying round the head. They are of white cotton, measure from two to six cubits square, and sell for from 1½ to 10 *Vir'-Ráya Fanams* each, or from 8¾*d*. to 4*s*. 11½*d*.

Parcala is a coarse plain cloth, from 20 to 22 cubits long, and 2¼ broad, which sells for from 10 to 20 *Fanams*, or from 4*s*. 11½*d*. to 9*s*. 11*d*.

Stamp duty.

A new stamp duty, of $\frac{3}{4}+\frac{1}{8}$ of a *Vir'-Ráya Fanam*, or of about 5¼*d*., has been laid on every two pieces of fine cloth; and of $\frac{3+\frac{1}{2}}{8}$ of a *Vir'-Ráya Fanam*, or about 2½*d*. on every two pieces of coarse cloth. The weavers in consequence have given up work, and gone in a body to the collector, to represent their case. The tax is laid

on in place of a duty, of four or five *Fanams* a year, that was formerly levied on every loom: by the weavers it is considered as heavier. CHAPTER IX. Oct. 21.

Jadar, a cast of weavers.

The weavers called here *Jadar* are the same with those who in the country above the *Ghats* are called *Telinga Dévangas*, and intermarry with those settled in *Karnáta*. They still retain the *Telinga* language. The greater part of those here wear the *Linga*. Some of them, however, are followers of the *Bráhmans*, and worship *Vishnu*; but this difference in religious opinion produces no separation of cast, and the two parties can eat together and intermarry. Those who wear the *Linga* have a *Guru*, called *Seranga Dévaru*, whose *Matam* is at *Cumbu Conu*, in *Tanjore*. Once in four or five years this *Guru* sends his agents to receive a small contribution. When he comes in person, he bestows *Upadésa*. Under the *Guru* are village *Jangamas*, who are married men holding their office by hereditary right, and subsisting upon charity, which they receive at all feasts and ceremonies. These *Jangamas*, and the *Bráhmans*, are by the *Jadar* considered as being equally portions of *Iswara*. The *Panchanga*, or village astrologer, reads *Mantrams* at their marriages, births, and fasts in commemoration of their deceased parents, both monthly and annual. The whole of the *Jadar* give *Dhána* to the *Bráhmans*, who inform them that their sins are thereby expiated. The hereditary chiefs of the *Jadar* are called *Shittigar*; these, with the assistance of a council, settle all disputes, and formerly used to levy weighty fines on all those who transgressed the rules of cast; but this authority has lately been curtailed. They still, however, continue to excommunicate transgressors. They are allowed to eat fowls, mutton, and the like; but ought not to drink spirituous liquors. They bury the dead, and are allowed a plurality of wives. The women continue to be marriageable after the age of puberty, and widows may take a second husband without disgrace. When a man commits adultery with another person's wife, and is discovered, he takes her to live with him as a kind of concubine,

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called here *Jatybidda;* but their children are looked down upon, and form a kind of bastard, or *Jatybidda* race. A woman, who has connection with a person of any other tribe, is severely flogged, and turned entirely out of the cast.

Stupidity of guides.

23d *October*.—I went seven *Malabar* hours' journey to *Moducun-Dery*, or the ferry of *Moducun*. This village is on the south bank of the *Bhawání;* but the people of *Sati-mangalam* were so stupid, or so malicious, as to inform us that it was on the north side; and although we had five guides from *Sati-mangalam*, the tents and baggage were separated. The people with the tents, having found out the true situation, went thither, while the persons conducting the baggage continued along the northern bank in search of the tents, till people were sent to recal them. Such accidents frequently occur; and the traveller, in questioning the persons brought him as guides, ought to be very particular to know, whether or not they are acquainted with the road; and he ought not only to promise them an adequate reward for their trouble, if they conduct him properly; but also to threaten them with a loss of pay, should they, either from ignorance or carelessness, mislead him. By means of a small basket covered with leather, I crossed the river at a place called *Dodara pallyam*, which contains fifty houses of weavers, who are all *Canara Dévangas*. They are quite clamorous about the new stamp duty; which, they say, will for every loom cost them twenty *Fanams*, in place of the five which they formerly paid.

Canara Dévangas.

In the western parts of Major Macleod's district the *Canara Dévangas* are very numerous; but, unlike the parent stock, they have given up the *Linga*, and are followers of the *Sri Vaishnavam Bráhmans*. Some in a similar way of thinking are settled in *Arcotar*, and *Coleagala*, places toward the southern extremity of *Karnáta*. In consequence of a famine, those now here migrated from *Namaculla* about seventy years ago. They do not intermarry with the *Canara Dévangas* who wear the *Linga*, nor with the *Telinga Dévangas* who follow the *Sri Vaishnavam Bráhmans*. They are all weavers, or cloth

merchants, and never follow any other business. Their *Guru's* office is hereditary. In his visits, which are not more frequent than once in eight or ten years, he receives the voluntary contributions of his followers, performs the ceremonies called *Chakrántikam* and *Upadésa,* and distributes holy water, and consecrated *Tulsi (Ocymum).* These people have an hereditary *Puróhita,* or *Vaidika Bráhman,* who ought to take their *Dhána,* and perform for them all other ceremonies, such as marriages. CHAPTER IX. Oct. 23.

Puróhita.

Every *Bráhman* is hereditarily attached to some *Puróhita*; but in *Karnáta* few of the *Súdras* are considered as of sufficient consequence to be so far honoured, and the *Panchánga,* or astrologer, of each village performs the ceremonies of religion for every person of pure descent who happens to live in it. In the country below the *Ghats,* the *Súdras,* being more wealthy, have acquired more attention; and many of them, like these weavers, are the hereditary property of particular *Bráhmans.* The *Puróhita* has considerable authority over his dependents; and, if they be rich, receives a large share of their profits. A man, who has ten or twelve families in good circumstances, can sell his office for five hundred *Pagodas;* for this is an alienable property: the only restriction in the sale is, that the office must be sold to a *Vaidika Bráhman* of the same sect. The office may even be mortgaged; the person lending the money performing the ceremonies, and taking all the profits, until he has been repaid.

The *Puróhita* of the *Dévangas* comes to marriages, and bestows on the bridegrooms a thread like that of the *Bráhmans,* which they ever afterwards wear. He also takes their *Dhána,* and at funerals reads certain *Mantrams.* If these are duly performed, the soul of the deceased goes to heaven, whether he has been a good man or not; and if the proper ceremonies have been omitted, he becomes a devil, whatever his conduct in this world may have been. The profits for smaller ceremonies seldom induce the *Puróhita* to attend; and any *Bráhman* that chooses may perform them. These

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Dévangas have hereditary chiefs, who, with the assistance of a council, settle all disputes, and expel such as are obstinate, or who transgress the rules of cast. They burn the dead. Some of them eat animal food; but none of them are allowed to drink intoxicating liquors. They never offer sacrifices to the *Saktis*. They are allowed to take several wives. The women are marriageable after the age of puberty; and widows may, without scandal, marry again. In this cast, no bastard race is permitted; and women who go astray, even with a *Dévanga*, are inevitably excommunicated. There is no punishment for the seducer.

Quarry of pot-stone.

I went from *Dodara-pallyam*, and about a mile from the river saw a quarry of pot-stone. It is found in very large beds or masses among the usual vertical *strata* of the country, all of which near the *Bhawání* run east and west. The *Balapum*, or pot-stone, is of a better quality than that above the *Ghats*; and the vessels made of it are much used by the natives for cooking, as it resists the fire, and, although very soft, is by no means easily broken. Four men find a constant employment in making these vessels, which are sent as far as *Seringapatam*. They are very clumsy, and not polished.

Face of the country.

The country through which I passed to-day is more rocky than that east from *Sati-mangalam*, but is better peopled. About one half only is waste. The only cultivation is that of dry grains. The country would look pretty if it were better wooded; but all the banks of the *Bhawání* are rather bare. The land here lets from five to forty *Fanams* the estimated *Bulla*. That which gives a high rent is in very small quantity, and the common rent is from ten to fifteen *Fanams*. By far the greater number of the people here are of *Karnáta* extraction. The sickness among my people continues to increase.

Oct. 24. *Dan' Nayakana Cotay.*

24th *October*.—I went five *Malabar* hours' journey to *Dan' Nayakana Cotay*, a fort situated on the north side of the *Bhawání*, a little above the junction of the *Máyár*. It is said to contain only about fifty houses, but it is large. In the suburb there are said to be

107 houses. Both statements seem to me to under-rate the population. CHAPTER IX.

Oct. 24. History of *Dan' Nayakana Cotay.*

The fort is said to have been built by *Dána*, a *Náyaka*, or *Polygar* dependent on *Madura*. The name signifies the fortress of *Dána* the *Náyaka*, or chief. His descendents were deprived of it by *Bal' Rája*, another dependent on the princes of *Madura*. From him, or at least from a descendant of the same name, it was taken by the *Rája* of *Mysore;* and, from its having been long dependent on that family, by far the greater part of its inhabitants speak the language of *Karnáta*.

About two months ago thirty or forty *Nairs* from *Wynaad*, or from *Nellala*, as it is here called, persuaded the chief of one of the hill villages, subject to the Company, to join them with sixty or seventy men. This united force came down to the low country, and plundered three villages. A hundred *Candashara*, supported by a few *Sepoys*, were sent out; and after an engagement, in which nobody was killed, took the chief and seven men prisoners. Of these three were *Nairs*. About ten years ago these banditti made some disturbance among the hill villages, but never before ventured down into the low country.

Face of the country.

The country through which I passed is rather rough, but contains much good land. It is almost entirely waste, which is attributed to the frequent marches made through it by *Tippoo's* troops, on their way between *Seringapatam* and *Coimbetore*. The only cultivation at present is that of dry grains; but formerly, three *Malabar* hours' journey above the fort, there was a dam which by a canal on the north side of the river, sent off water sufficient to supply five hundred *Candacas* of land, each containing one hundred *Seers*. This dam was built about a hundred years ago by a person named *Lingaia*. In the following year it was swept away by a flood, and has ever since been neglected. Major Macleod was repairing it, when the rainy season commenced, and put a stop to the work.

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Oct. 24. Forests.

The forests on the *Ghats* here contain the following trees:

Bamboos,

Which are small, but very strong.

Carachu. Hardwickia Roxb: MSS.

Timber very hard, and black.

Biday.

This is called *Sissu* by the Mussulmans; but is probably a different species of *Dalbergia,* or *Pterocarpus,* from the *Sissu* of *Hindustan* proper.

Whonay. Pterocarpus Santalinus Willd:

A valuable timber tree.

Tayca, or *Teak.*

The only kind here is said to be different from the common *Teak,* and is called *Cotay, Calicotay,* or *Cadicotay.* The leaves and branches brought to me as belonging to it strongly resemble the *Premna villosa* Roxb: MSS.; but I suspect some mistake in this, and that the timber which was brought as a specimen was really that of the *Tectona robusta.*

Vaynga. Pterocarpus bilobus Herbarii Banksiani.

A good timber tree.

Sujalu. Mimosa Tuggula Buch: MSS.

Urugulu. Sweitenia Chloroxylon Roxb:

Arulay. Myrobalanus Arula Buch: MSS.

Nerulu. Myrtus Cumini.

Bagy. Mimosa speciosa Jacquini.

Wild *Mango-tree, Mangifera.*

Wild *Jack-tree, Artocarpus.*

Budugar, a rude tribe.

Honey and wax are gathered by a cast called *Budugar,* who inhabit the hilly country between this and the province of *Malabar,* and which lies south from *Nelleala,* or the *Wynaad* of Major Rennell. They live in small villages, and huts, like the *Eriligaru;* and not only use the *Cotu-cadu* cultivation already described, but have

also ploughs. The quantity of honey and wax which they procure is considerable, and they pay nothing for it, there being no forest-renter in this district. CHAPTER IX.

Oct. 25.

Mountains between *Coimbetore* and *Malabar*. *Eriligaru*.

25th *October*.—I remained at *Dan' Nayakana Cotay*, and took a very long and fatiguing walk to the top of the western hills, in order to see a *Cambay*, or village inhabited by *Eriligaru*. The love of the marvellous, so prevalent in India, has made it commonly reported, that these poor people go absolutely naked, sleep under trees without any covering, and possess the power of charming tigers, so as to prevent those ferocious animals from doing them any injury. My interpreter, although a very shrewd man, gravely related that the *Eriligaru* women, when they go into the woods to collect roots, entrust their children to the care of a tiger.

On the hills the *Eriligaru* have small villages. That which I visited contained seven or eight huts, with some pens for their goats; the whole built round a square, in which they burn a fire all night to keep away the tigers. The huts were very small, but tolerably neat, and constructed of *Bamboos* interwoven like basket-work, and plastered on the inside with clay. These people have abundance of poultry, a few goats, and in some villages a few cows, which are only used for giving milk, as the *Eriligaru* never use the plough. They possess the art of taking wild-fowl in nets, which adds to their stock of animal food; and sometimes they kill the tigers in spring traps, loaded with stones, and baited with a kid. Near their villages they have large gardens of plantain and lime trees, and they cultivate the neighbouring ground after the *Cotucadu* fashion, changing the fields every year. One of the articles raised by this means is a new species of *Amaranthus*, the seed of which they grind to flour, and use as a farinaceous substance. I have sent it to Dr. Roxburgh, under the name of *Amaranthus fariniferus*. Besides cultivating their gardens and fields, the *Eriligaru* gather wild *Yams (Dioscoreæ)*, and cut timber and *Bamboos* for the people of the low country. Both men and women take an

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equal share of the labour in cultivating their fields. They have the advantage of a tolerably good soil, and a part of two rainy monsoons; yet, although they have fixed abodes, and of course gardens, they are greatly inferior to the subjects of the *Pomang-gri*, and other rude tribes, who inhabit the hilly parts of *Chittagong*. Their huts are much poorer, and their persons are miserable. Both men and women are clothed with dirty cotton stuffs, but in much smaller pieces than those used by the other inhabitants. They speak a bad or old dialect of the *Karnáta* language, and must be therefore of a different race from the *Eriligaru* that I saw at *Ráma-giri*, who spoke a dialect of the *Tamul*.

Noble prospect.

Although the atmosphere was rather hazy, I had from the hills a noble view of the whole course of the *Bhawání*, and of the country called *Chéra* as far as *Sancli-durga*, and other remote hills. Near the village I was refreshed by the cool water of a fine perennial spring, which in India is a great rarity.

Appearance of the country.

26th *October*.—I went seven and a half *Malabar* hours' journey to *Sirumugá*, on the east side of the *Bhawání*, which is here a fine clear stream coming from the south. Cultivation occupies a very small proportion of what has formerly been ploughed, and is confined chiefly to the banks of the river, where the soil is best. The higher grounds consist of a poor soil full of stones; and many of the fields, to judge from the size of the trees that have sprung up in them, seem to have been long deserted. *Sirumugá* is a poor village, with about twenty houses; but has some shops, which are not very common in this province. In the *Sultan's* reign it was the residence of an *Amildar* dependent on the *Asoph* of *Coimbetore*, and contains the ruins of many huts. The people complain much of the scarcity of rain; and the dryness of the fields, and want of pasture, show their complaints to be well founded. Fifteen of my people are now ill with fevers.

Appearance of the country.

27th *October*.—I went a long stage called seven and a half *Malabar* hours' journey, and halted at *Gulur*, a village without a shop.

By the way I passed *Bellady*, a mud fort which has a suburb at some distance. Two small streams cross the road toward the east; but it is said, that having united they turn round, and at *Sirumugá* join the *Bhawání* by a channel, which I did not observe. A small tank has been formed near these streams, and receives a supply of water from them, so as to enable the people to cultivate a little rice. The soil of the country through which I passed to-day is very poor, and there is scarcely any of it cultivated.

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Oct. 27.

Irregular nature of the rains.

There has been rain twice only this season, and none for the last fifteen days, so that the country is quite parched; and it is said, that had there been more rain, the cultivation would have been more extensive. The rains seem here to be very partial. They have been plentiful all the way up the *Bhawání*, except at *Sirumugá*; and at *Nellaturu*, near its source, they are said to have been abundant. Most of the people here speak the *Tamul* language, a few use the *Telinga*, but that of *Karnáta* does not extend so far from the *Ghats*.

Oct. 28. Face of the country.

28th *October*.—I went eight *Malabar* hours' journey to *Coimbetore*. The country is much freer of rocks and stones than that through which I have passed for some days, and the soil is in general good. The waste fields do not appear to amount to more than a half of all that is arable. There are few hedges, and the country is remarkably bare of trees. An avenue of a species of *Ficus* has been planted all the way from *Dan' Náyakana* to *Coimbetore*, but it is not thriving; and, except these trees, the country is as bare as that in the vicinity of *Seringapatam*.

History of *Coimbetore*.

The hereditary chief of *Coimbetore*, as we call it, is of the *Vaylalar* tribe. Formerly his ancestors dwelt in a village at the foot of the hills, the site of the town being then a forest, in which there were four or five huts of a rude tribe called *Malashir*, and a temple of their goddess *Conima*, which still remains. The head man of these people was called *Coia*, and the name of the village *Coiampuddi*.

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The ancestor of the present chief, having obtained the consent of the *Malashir*, came to their village, and built a fort. Soon after all these people died, and their goddess appeared in a dream to the *Vaylalar* chief, and commanded him to enlarge her temple, and appoint a priest *(Pujári)*, promising him a great increase of power, and desiring him to assume the name of *Cotegara Calippa*, and to change that of the place to *Coiamuturu*. The present chief, who gives me this information, says, that he is the twentieth in descent from the first founder of the town. The family originally paid tribute to the *Rájás* of *Madura*. The country was conquered by the *Mysore* family about one hundred and fifty years ago, and the fort was then enlarged. For some time before and after the accession of *Hyder*, it was governed by a person named *Madana*, who enjoyed his office forty years, and was a *Lingabunt* (one who wears the *Linga*). He built a house here, which by the natives is called a palace, and is considered as an immense work. It certainly is abundantly large; but it is a clumsy, inconvenient pile of mud; and at present serves as a barrack for the officer commanding a regiment of cavalry, who is very indifferently lodged. In the government of *Madana* the place was very flourishing. It suffered much by the subsequent wars; and about eight years ago the fort was destroyed by the late *Sultan*. Since it fell into the hands of the English, and especially since it became the quarters of a regiment of cavalry, the town has recovered considerably; and it now contains two thousand houses, which is about $\frac{2}{3}$ of what it contained under *Hyder's* government. It has a tolerable mosque, built by *Tippoo*, who sometimes resided in the palace; but it has no large temple. Here I was most kindly received by the officers of the regiment, as indeed I was almost every where during my journey; for English hospitality is in no part of the world more eminently distinguished, than among the officers serving under the government of *Madras*.

CHAPTER IX.

Oct. 29, 30. Temple called *Mail Chitumbra.*

29th and 30th *October.*—I remained at *Coimbetore*, taking an account of the vicinity; and on the morning of the 30th I visited a celebrated temple at *Peruru*, which is two miles from *Coimbetore*. It is dedicated to *Iswara*, and called *Mail* (high) *Chitumbra*, in order to distinguish it from another *Chitumbra*, that is near *Pondichery*. The idol is said to have placed itself here many ages ago; but it is only three thousand years since the temple was erected over it by a *Rája* of *Madura*. It has four *Raths*, or chariots, and a very fine tank entirely lined with cut stone. The building is highly ornamented after the *Hindu* fashion; but the whole, as usual, is utterly destitute of elegance, and the figures are not only extremely rude, but some of them are indecent. The stone of which it is built is very fine. Some of the pillars intended for it are lying near, and are said never to have been erected; the work having been left incomplete, owing to the death of the *Rája* by whom it was undertaken. The freshness of the stones by no means corresponds with the era given by the *Bráhmans* for the work. The *Bráhmans* in the time of *Hyder* had very large endowments in lands; but these were entirely reassumed by *Tippoo*, who also plundered the temple of its gold and jewels. He was obliged, however, to respect it more than many others in his dominions; as, when he issued a general order for the destruction of all idolatrous buildings, he excepted only this, and the temples of *Seringapatam* and *Mailcotay*. This order was never enforced, and few of the temples were injured, except those which were demolished by the *Sultan* in person, who delighted in this work of zeal. This temple is in the district of Mr. Hurdis, who gives for its support an allowance sufficient for keeping up a decent worship, but very inadequate to quiet the clamours of the *Bráhmans*. Even in the reign of the *Sultan* an allowance was clandestinely given; so that the *Púja*, or worship, never was entirely stopped, as happened in many less celebrated places.

Persecution of the idolaters by *Tippoo*.

CHAPTER IX.

Oct. 29, 30.

Saline earth.

In the neighbourhood of *Peruru*, both culinary salt and saltpetre are procured by lixiviating the soil.

At *Coimbetore* the new weights and measures introduced by Major Macleod are coming fast into use; but still the cultivators in general reckon every thing about their farms by the old standards, which are as follow:

Weights.

Weights.

177 grains		=1 *Dudu.*
1416 grains, or	8 *Dudus*	=1 *Polam.*
14160 grains, or	10 *Polams*	=1 *Seer*=2,$\frac{023}{1000}$ lbs.
	40 *Seers*	=1 *Maund*=80$\frac{91}{100}$ lbs.

Measure for Liquids and Grain.

Dry and liquid measures.

84 *Dudus* weight of grain make one *Puddy*, which is therefore equal to the *Sultany Seer*.

4 *Puddies*=1 *Bulla.*

30 *Bullas* =1 *Mau*=Bushels 4,$\frac{144}{1000}$.

The *Mau* of the *Tamuls* is called *Salagá* in the *Telinga* language; *Candaca* in that of *Karnáta,* and *Candy* by the Mussulmans.

Land Measure for watered ground.

Land measure, and quantity of seed.

The pole is 24 feet in length. A square of 16 poles by 15 makes a *Mau,* or *Candaca*-land, which requires 3 *Maus* of seed in the transplanted cultivation, and sows two *Maus* of sprouted seed. It is nearly equal to 3$\frac{173}{1000}$ acres. The farmers here therefore sow 3,$\frac{92}{100}$ bushels on the acre; but at *Nala Ráyana Pallyam* they sow only at the rate of 1,$\frac{6}{16}$ of a bushel. Until I came here, I suspected that at the last mentioned place they had stated their *Candaca*-land to be less extensive than it actually is; and I was confirmed in this opinion by what was said at *Satimangalam;* but I am now inclined to

believe in the accounts given me by the people of *Nala Ráyana Pallyam*, and in the great fertility of their rice lands.

Measure for high Lands.

The *Mar* is a fathom made by passing the rope round the shoulders, and bringing the hands forward, and is equal to six feet nine inches. 64 *Mars* square is one *Bulla*, or *Vullam*, as it is pronounced here. This is therefore equal to $4\frac{284}{1000}$ acres.

Money.

Once a month the *Tahsildar* assembles the money-changers, and by their advice establishes a *Niruc Náma*, or rate of exchange. In this, occasional alterations are made, if complaints are preferred by these persons, of an increased or diminished demand for any particular coin.

Watered-ground rice.

In this neighbourhood there is much rice ground watered by means of reservoirs, that are filled by canals drawn from the *Noyel* river. They produce only one crop in the year, which begins to be cultivated from about the 10th of June to the 10th of August. The cultivation that has always been most prevalent, is by transplanting, although it is reckoned by far the most troublesome. I have already stated the quantity of seed, which is at the rate of almost four bushels an acre. The produce of a *Mau*-land, of good soil, when there is plenty of water, is thirty-five *Maus*, or *Candacas*; and, when the water is scanty, twenty-five *Candacas*. The former is at the rate of forty-six bushels, and the latter at that of $32\frac{8}{10}$ bushels, an acre. One plough, wrought by a man and two oxen, ought to cultivate a *Mau* of rice land, or $3\frac{171}{1000}$ acres; and additional labourers must be hired at planting and weeding seasons. At this place very little sugar-cane is raised.

Dry-field.

Near the town the principal articles cultivated in dry-field are *Cambu*, *Sholum (Holci spicatus et sorghum)*, and cotton. On the black mould, the farmers sow alternately *Upum* cotton one year, and in the other any of the following grains; namely, *Sholum*, *Cambu*, *Tenay (Panicum italicum)*, and *Cadalay* (*Cicer arietinum*). Two

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crops are never taken in the same year. The manner of cultivation is the same with that at *Bhawání-kudal.*

Oct. 29, 30. Manure.

It must be observed, that in all this part of the country the farmers have no dunghills; they manure their rice-lands with leaves, and their dry-field by folding cattle on it, before the ploughing commences; for this purpose sheep or goats are reckoned best, and are kept by every farmer.

Produce of dry-field.

The following is the statement given by the cultivators, as the produce of their fields in a good crop, from one *Vullam:*

Upum cotton 75 *Cucha Maunds,* or 425 lb. an acre.

Sholum -	20 *Mau,* or - - -	$19\frac{1}{2}$ bushels an acre.
Cambu -	10 ditto - - - -	$9\frac{3}{4}$ ditto.
Tenay -	20 ditto - - - -	$19\frac{1}{2}$ ditto.
Cadalay -	7 ditto - - - -	$6\frac{8}{10}$ ditto.

Cotton.

Nadum cotton is cultivated in one village only of the *Coimbetore* district. It lasts three years in the ground; but is inferior in quality to the *Upum* kind, and is in fact a wretched article.

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Cynosurus Corocanus.

Near the hills of *Coimbetore, Kevir,* or *Ragy,* is sown on dry-field; but in every other part of the province it is only cultivated in gardens. Cattle are folded on the field, which is afterwards ploughed four or five times between the 10th of April and the 10th of June. After a good rain in any of the three following months, it is sown broad-cast and ploughed in. To destroy superfluous plants, at the end of a month furrows are drawn throughout the field, at the distance of six inches. Ten days afterwards the weeds must be removed with a hoe. It requires six months to ripen. The seed for a *Vullam* land is fifteen *Vullams;* the produce in a good crop is thirty *Mau.* At this rate, the acre sows 0,486 bushel, and produces $29\frac{14}{100}$ bushels.

Extent of a plough-land.

One plough, two oxen, and a man, in a proper season, can cultivate 3 *Vullams,* or $12\frac{1}{2}$ acres, of dry-field. A farmer, with four ploughs, five men, eight common oxen, and a large one or two for the machine called *Capily,* manages eight *Vullams,* or $33\frac{1}{3}$ acres, of

dry-field and one *Vullam* of garden, which is $4\frac{144}{1000}$ acres; in all, $3\frac{1}{2}$ acres. CHAPTER IX.

A considerable quantity of the ground rated as dry-field is called here *Capily Tota*, or gardens watered by the *Capily*; and also *Velami Tota*, or cultivated gardens. Its rent is much higher than that of the other dry-field; as it lets for from 30 to 200 *Canter'-Ráya Fanams* a *Vullam*, or for from 4*s.* $4\frac{1}{2}$*d.* to 1*l.* 9*s.* $1\frac{1}{2}$*d.* an acre; while common dry-field lets for from five to sixty *Fanams* a *Vullum*, or for from $8\frac{3}{4}$*d.* to 8*s.* 9*d.* an acre. All kinds of soil are cultivated for gardens, and the variety in this respect occasions some difference in their value; but the depth below the surface, at which the water stands in the wells, is the chief cause of the variation in rent. In some gardens the water is within eight cubits of the surface, in others at eighteen. Some wells also contain only saline water, and this diminishes greatly the value of the land which they irrigate. The best soil for this purpose is called *Krishna bumi*, and is a black mould, that readily dissolves into mud when watered. The articles cultivated in these gardens are tobacco, *Sholum*, (*Holcus sorghum*), *Kevir* (*Cynosurus corocanus*), *Cambu* (*Holcus spicatus*), wheat, capsicum, onions, and other kitchen stuffs. Oct. 29, 30. Gardens called *Capily Tota*. Rent.

Tobacco preceded by *Kevir*, and followed by *Sholum*, is by far the most important rotation. Rotation.

The *Kevir* raised in these gardens is the same with the *Nat' Ragy* of *Mysore*. Between the 11th of April and the 12th of May cattle are folded on the ground, which is then ploughed four times, sprinkled with ashes, divided into square plots for confining the water, and then sowed. The plots are smoothed with the hand, and immediately watered. On the third day, and on every fifth day afterwards, for a month, the watering is repeated; and then the seedlings, which have been raised very thick, must be transplanted. The ground for this purpose is prepared exactly like that for the seed, in the interval between the sowing of this, and the seedlings being fit for transplantation. By watering the soil is then *Cynosurus Corocanus*.

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converted into mud, and the young plants are set at proper distances. On the third day they get water, which afterwards is given every sixth day. If the soil be good, no weeding is necessary; but in bad soils grass springs up, and, thirty days after the planting, must be removed by a small hoe. The *Kevir*, after being transplanted, requires four months to ripen; and a *Vullam*-land, in a good crop, produces thirty *Maus*, which is at the rate of $29\frac{14}{100}$ bushels an acre.

Tobacco.

For raising the tobacco seedlings, a small plot of ground must be hoed between the 14th of August and the 14th of September, and formed into small squares for watering. The seed is sown, and covered with the hand. The plot is then watered, and, to keep off the sun, is covered with bushes. For the first month it must be watered every other day. On the tenth and twentieth days sow some more seed on the same plot, by which means a succession of seedlings is procured. After the first month water is only given every fifth day. In the end of August and beginning of September the field into which the seedlings are to be transplanted must be dunged, and then ploughed; and, if the cultivator has cattle, he folds them on the ploughed ground. He then ploughs four or five times, and takes out all the weeds. From the middle of September to the middle of October the ground is divided into small squares; the squares are watered, until the soil becomes mud; and at three o'clock the plants of the first sowing are taken up, and transplanted immediately at a cubit's distance. The whole seedlings of the first sowing must be removed in two or three days about the end of September. About ten days afterwards, transplant the seedlings of the second sowing, and ten days afterward those of the third. On the third day after transplanting, give them water, and repeat this every fifth or sixth day, until they are fit for cutting. At the end of a month the field must be hoed. A month afterwards the plants have grown high, and their tops must be pinched off, so as to leave only a cubit of each. Once a week, for three times, the young

branches which shoot out must be pinched off. When four months old the tobacco is fit for cutting. In order to render the leaves sweet, the field must then be watered, and the plants are cut down close by the ground, and left on the field until next morning, when they are tied by the root-end to a rope, and hung up all round the hedges. If it be clear weather, the leaves dry in ten days; but when the sun is obscured by clouds fifteen are required. When dry, the tobacco is placed in a heap under a roof, is covered with bushes, and pressed with stones for five days. The leaves are then removed from the stems, and tied up in bunches, which are again heaped up, and pressed for four days. After this they are made up into bundles, each containing some small and some large leaves; and, when fully cured, weighing about twelve *Polams*, or nearly $2\frac{427}{1000}$ lbs. These are heaped up again, and pressed for twice five days, having at the end of the fifth day been opened out, and new heaped. The tobacco is then ready for sale. A good crop, from a *Vullam*-land, is one thousand bundles, or $566\frac{1}{2}$ lbs. from an acre. During the busiest part of this cultivation, eight oxen and ten men are required daily for one *Vullam*-land.

Holcus sorghum.

Immediately after cutting the tobacco, in the month commencing about the 10th of January, plough three times; and, after some days rest, plough again. Sow the *Sholum* seed broad-cast, and cover it by a fifth ploughing. With the hoe called *Mamutty* divide the field into squares for watering, each side being about four cubits. Fill the squares with water; repeat this on the fifth day, and ever afterwards every eighth day. At the end of a month hoe again with the *Mamutty*. In four months the *Sholum* ripens. A *Vullam*-land requires eight *Vullams* seed, and in a good crop produces thirty *Maus:* an acre, therefore, for seed requires 0,2551 bushel, and produces $29\frac{14}{100}$ bushels.

Gardens on watered land.

Part of the watered ground is cultivated for gardens, which are either of *Betel-leaf* or of palms.

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Betel-leaf, Piper Betle.

The *Betel-leaf* gardens are cultivated by a particular class of men, called *Codi-cal-carun;* that is, *Betel-trench-makers.* For each plantation these rent a *Mau* of land, and pay for it three hundred *Fanams* a year, which is at the rate of 3*l.* 14*s.* 3½*d.* an acre. This must be of a very rich soil, either black, or black mixed with red. A new garden is thus formed. From the 13th of July until the 13th of August trenches are dug with the *Mamutty* one cubit wide, one cubit deep, and twenty-eight cubits long, at the distance of four cubits from each other. In the beds formed between these trenches are sown two rows of the seeds of the *Agutty* (*Aschynomone grandiflora*), and of the *Guilandina Moringa.* Every other day the trenches are filled with water, and from these the beds are sprinkled. This having been continued for four months, slips of the *Betel-vine* are planted in two rows. The slips are a cubit long, and one end of each is placed in a hole, distant one cubit from the others of the same row. At the first commencement of the garden it is surrounded by a hedge of *Calli* (*Euphorbium Tirucalli*). The channels, ever after planting the vines, must be kept constantly full of water, and in the dry season the beds must from thence be sprinkled once every other day. When the vines have been planted three months, they must be tied up to the trees, and the garden must be cleared of weeds with a knife: a little dung is then given to each plant. From the 12th of March to the 10th of April, or three months after the first weeding, the weeds are again removed, and the plants are manured. At the same time the opposite trees, of the two rows in each bed, are tied together in the form of the cross of St. Andrew, and the vines are tied up afresh. From January the 11th to February the 9th of the second year, the vines are untied; two cubits next the root are buried in the earth, and then they are tied up again. Whenever weeds shoot up, they must be removed. In the month commencing with the 12th of May of the second year, the garden begins to produce leaves fit for use; and continues to do

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so for one year and a half, when it is ploughed up for rice. A garden of one *Mau*, equal to three acres and a half, requires the constant labour of thirty-two men.

Palm gardens, *Areca catechu*, *Cocos nucifera*, and *Musa*.

The palm gardens contain the *Betel* and coco-nut palms, and the plantain tree, and are cultivated by the richer farmers. The most favourable situation is near the side of a river, or torrent, where the soil contains a good deal of sand, and where water may be found by digging to the depth of two cubits. Limestone in the soil is not reckoned of any advantage. A new plantation is thus formed. In the first month of the year, commencing on the 11th of April, the ground is ploughed twice, and manured either with dung, or by folding cattle on it. In the next month plough again twice, and then manure the field as before. Between the 14th of September and the 14th of October plough once, and at the distance of four cubits from each other dig trenches, one cubit broad, and about six inches deep, crossing each other at right angles through the whole extent of the garden. Near every channel, or trench, is set a row of the young shoots of the plantain tree, at the distance of four cubits from each other. Parallel to every fourth row of these, is formed a row of pits, distant from each other sixteen cubits, and a foot deep. In each of these is placed a coco-nut, with the eye up, and it is covered with four inches of fine mould. Once in six days the channels are then filled with water. Between the 13th of December and the 10th of January small pits are made, at the distance of one cubit, or of one cubit and a half from each other, and in rows on the opposite side of the channels from where the plantains were set. In each of these holes is placed a *Betel-nut*. In the following month, the whole garden must be hoed, and the channels formed again. Once in ten or fifteen days, when there is no rain, these must ever afterwards be filled with water. The garden must be hoed twice every year; once between the 11th of January and the 10th of February, and again between the 12th of June and the 12th of July. It is surrounded by hedges containing limes, *Jacks*

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(*Artocarpus*), oranges, pomegranates, &c. secured by the *Euphorbium Tirucalli.* In eighteen months the plantains yield fruit, and are never removed from the garden. The *Arecas* are thinned where they happen to grow too close; the proper distance for each tree being three cubits square. In eight years they begin to bear; but do not produce a full crop until they are twelve years old. In the twenty-second year new seed is put in, to supply the place of the trees that die. At twelve years of age the coco-nut palm begins to produce fruit; and, when they are fifty years old, seed is put in to supply the loss of the old ones. They are all used in the country, and sold in the shell; for the people here prepare no *Copra,* or dried kernel. The husks of the green nuts, that have been used for drinking, are thrown into water to soak. Once in five or six months the people called *Parriar* come and prepare the *Coir* (from which ropes are made) from what has been sufficiently soaked, giving one half to the farmer, and keeping the other half for their trouble. The husks of nuts that are allowed to ripen the kernel are of no use. Some of the *Areca* palms produce between the 12th of May and the 11th of June; many more of them produce in the month following, and a few produce between the 14th of November and the 12th of December; but no one tree produces two crops in the same year. The nuts, as they come from the tree, are sold by the farmers to people who make a separate profession of boiling them. The rent of a *Mau* of garden cultivated with palms varies from forty to two hundred and thirty *Fanams,* which amounts to from 7*s.* 10½*d.* to 2*l.* 5*s.* 2¾*d.* an acre. Until twelve years old it pays forty *Fanams* only, as a rent for the plantains. Two men take care of a garden of one *Mau;* but at each hoeing thirty or forty labourers must be hired. The proprietor cannot or will not give me any estimate of the produce. The *Betel-nut* is reckoned inferior to that of *Malabar.*

Iron.

Iron is smelted from black sand at *Topum Betta,* about five miles north from *Coimbetore;* and at two places, at no great distance, in

the district under Mr. Hurdis. This information I did not receive in time to be enabled to examine the process. CHAPTER IX.

Oct. 29, 30. Commerce.

The principal merchants at *Coimbetore* are *Comatties*, or *Vaisyas*. They say, that the chief trade is carried on with the province of *Malabar*. The places that trade with this are, *Pali-ghat*, *Calicut*, *Cochi*, *Wanarcot*, *Tellichery*, and *Angada-puram*. The exports from hence are tobacco; cotton wool, thread, and cloth; sugar, and *Jagory*; capsicum, onions, *Betel-leaf*, and *Jira* and *Danya*, two of the carminative seeds. The imports from *Malabar* are *Betel-nut*, black pepper, turmeric, *Sunt*, or dried ginger, nutmegs, mace, cloves, and other spices, saffron, camphor, benjamin, assafœtida, *Munjeet-root*, *Cut*, or *terra japonica*, *Piphul*, or long pepper, raisins, dates; China sugar-candy, Bengal sugar, sulphur, red arsenic, *Hurtal*, or yellow orpiment, lead, copper, false gilded paper, paper, raw-silk, taffetas, silk cloths called *Kingcobs*, and *Gulbudden*, woollen cloths, cotton cloths called *Mucmulls*; *Attalas*; *Nankeens* and chintzes; towels, and shawls, with many smaller articles. *Coimbetore* has no direct trade with *Travancore*, nor with *Catangady*, as the *Wynaad* is here called. From the country above the *Ghats* are brought some *Burrahunpour* goods; and there are sent up tobacco, *Ghee*, or boiled butter, and cotton cloths. From the places in the eastern country below the *Ghats*, such as *Saliem*, *Tanjore*, and *Negapatam*, there come silk, and cloths. The returns are made in the *Betel-nut* and pepper of *Malabar*.

Manufactures.

There are many weavers in the neighbourhood of *Coimbetore*; those in the town are *Jadar*, and *Coicular*; those in the villages are *Bestas*, *Canara Dévangas*, and *Parriar*. In the whole district there are four hundred and fifty-nine looms.

Kinds and prices of goods wrought near *Coimbetore*.

The *Jadar* make the finest cloths. They are of a very thin texture, like those called book muslin. Of these the following kinds are wrought for common sale:

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	Cubits long.	Cubits broad.	Highest price. *Vir'-Râya Fanams.*	Lowest price. *Vir'-Râya Fanams.*	Highest price. Shillings and pence.	Lowest price. Shillings and pence.
Cloths of an open texture made by the *Jadar*.						
Skillas, plain white muslin - - - - -	24	2¼	22	12	10 11½	5 11½
Ditto - - - - - - - -	36	2¼	32	18	15 10½	8 11¾
Ditto - - - - - - - -	24	2½	16	13½	7 11¼	6 8½
Ditto - - - - - - - -	24	3	30	25	14 10¾	12 5
Ditto - - - - - - - -	20	2	8	7	3 11½	3 5¾
Shirays, with coloured silk borders, gold ends, and figures wrought in the loom with silk thread -	20	2¼	56	26	27 9¾	12 11
Ditto without the gold or figures - - - -	20	2¼	24	12	10 11	5 11½
Dotras, being also white muslin with coloured silk borders - - - - - - - -	24	2¼	40	15	19 10¼	7 5½
Dupatas. Plain white muslin worn round the shoulders like a shawl - - - - - -	8	2¼	6	3	2 11¾	1 5¾
Sada Shal. Same cloth with gold and silk borders in shawl patterns - - - - - -	8	2¼	64	32	31 9	15 10½
Pagu, or turbans, white with gold ends - -	30	½	16	4	7 11½	1 11¾
Shirays, dark blue with yellow or red silk borders	20	2¼	40	16	19 10½	7 11¼
Cambawutty Shirays, or white muslin checquered with coarser thread and red cotton borders -	20	2¼	32	20	15 10½	9 11
Cloths of a close texture.						
Paracala, like the *Humums* of Bengal - -	20	2¼	24	10	11 11	4 11½
Dotras, of the same fabric, with red cotton borders	5	2¼	3	2	1 5¾	0 11¾
Shirays of various mixed colours, dark and light blues, and red, very coarse - - - -	19	2¼	22	12	10 11½	5 11½
Ditto striped blue and white with red borders -	16	2	- -	9	4 5½	
Ditto white with red and yellow borders - -	16	2	- -	7	3 5½	
Cloths made by the *Coicular* and country weavers.						
Cadi. Plain cloth like Bengal *Baftas* - -	24	2½	11	- -	5 5½	
Ditto - - - - - - - -	20	2¼	7½	- -	3 8½	
Ditto - - - - - - - -	17	2	5	- -	2 5¼	
Shirays with red borders - - - - -	16	1¼	5½	- -	2 8¼	
Ditto with blue ends - - - - - -	16	1¼	4	- -	1 11¾	

Of the cloths made by the *Jadar*, the plain ones appear to my Bengal servants to be cheap, the figured ones are dear. The cloths made by the *Coicular* are very coarse, and rather dear.

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Cotton.

The cotton growing in the country is not only sufficient for the consumption of the place, but is also exported in great quantities, both raw and spun, to the province of *Malabar*. The women of all the farmers and low casts are great spinners; but those of the *Parriar* are reckoned to make the best thread. The women of the weavers are chiefly employed in warping the webs. All the silk and gold thread, with the best of the red cotton yarn, is imported ready prepared from *Salem*, *Tanjore*, *Tranquebar*, and other towns on the sea-coast.

Dyeing.

The weavers dye cotton thread red with the *Muddi*, or *Morinda*; but it is a perishable colour. Those of this place are reckoned to excel in dying black, as they call it, but in fact a dark blue. They use indifferently the indigos prepared from the *Nil*, or *Indigofera tinctoria*, and from the *Pala*, or *Nerium tinctorium* Roxb: MSS. This kind of indigo is called *Palac*; and I was here told, that it was prepared at *Palachy*; but on going to that place, I found that this information was not true. Indeed, in that vicinity I did not see one of the trees. The colour given with both kinds of indigo is exactly the same, and in the same vat they are frequently intermixed. The account of the process given by the weavers is as follows.

Palac indigo.

Take ten *Polam* ($2\frac{913}{1000}$ lb.) of *Palac*, pound it small, and soak it three days in $\frac{1}{4}$ *Puddy* of water (0,2433 quart). Saline water is not preferred here, as is the case at *Bangalore*. After having been soaked, the *Palac* is rubbed in a mortar, until it is reduced to a mud. Then take one *Puddy* (0,2777 Winchester gallon) of the seed of *Tagashay (Cassia Tora)*, and boil it in one and a half *Puddy* ($1\frac{44}{100}$ ale quart) of water, until it be soft. Pour this decoction upon the *Palac* that has been ground to mud, and for three days cover the vessel with a pan, until the mixture becomes sour. Then, by filtering water through the ashes of the *Euphorbium Tirucalli (Calli Chumbul)*, make a strong solution of the carbonate of potash. Of this every morning and evening add $\frac{1}{4}$ *Puddy* (0,2433 quart) to the fermented vat, until the colour be dissolved, which will require

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eight or ten days. Then having added some quick-lime to the solution of potash, and having thus drawn from it the carbonic acid, take of the caustic ley $\frac{1}{4}$ *Puddy*, and morning and evening for two or three days add this to the vat, which will then be fit for dyeing. The thread, as it comes from the spinners, is dipt into a solution of carbonate of potash, and having been wrung is dyed in the vat. After the colour has been extracted from this, it is filled up again with caustic ley, and next day again produces some colour. This is repeated seven or eight times, until the colouring particles are quite exhausted. Two dips in a fresh vat give a full colour; but as the vat is exhausted, the number of immersions must be increased.

Exportation of cloths.

Of the cloth not consumed in the country about one half is sent to the province of *Malabar*, and the remainder to *Seringapatam*. The commercial resident at *Saliem* twice made advances to the weavers of *Coimbetore* for the coarse cloth called *Paracalas*, on terms similar to those which I have already mentioned. The weavers are very anxious to have a continuation of this employment. None of their cloth was rejected; but some, that they had rated as of the first quality, the resident reduced to the second, and the weavers were contented to receive this price.

Advances.

Each of the different classes of weavers here forming, as it were, a kind of family, the richer assist the poor; so that those who work for country use are either able to make the cloth on their own account, or at least are not obliged to take advances from a native merchant for more than one piece at a time. Those who once get into the debt of a native merchant are ever afterwards little better than slaves, and must work for him at a very low rate.

Duties on manufactures.

The weavers here formerly paid a certain duty on every loom; which, in order to encourage large dealers, was lower on those who kept many looms, than on those who had few. Eight *Fanams* (3*s.* 11$\frac{1}{2}$*d.*) was paid annually for a single loom, and this revenue was collected by the *Sunca*, or custom-house. This duty has been

taken off, together with all transit duties on cloth; and in place of these, a stamp duty has been imposed. The weavers say, that this will be harder on them than the former duties were, and they have requested the collector to restore the former mode of assessment, but without success.

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None of the weavers here cultivate the land. Some of them, it is true, rent lands; but these are cultivated by servants of other tribes.

Customs of the *Coicular*.

The *Natami Carun*, or hereditary chief, of the *Coicular* weavers here, informs me, that in this tribe there are the following divisions; namely, *Siritali*, *Tataynatar*, and *Conga*, to which last he belongs. In other districts other divisions are known; at *Sati-mangalam*, for instance, they are divided into *Chóla*, *Culcundo*, *Murdea*, and *Conga*. There the hereditary chief is a *Murdea*. Those divisions do not intermarry, but can eat in common. As the *Coicular* never marry persons of the same family in the male line with themselves, their marriages are confined to a few families, whose descents are known to each other. The men may marry several wives, and the women continue after the age of puberty to be marriageable. Except among the *Siritali*, a widow cannot marry again. They do not allow of that kind of inferior marriage, called *Cutiga* above the *Ghats*, and *Wopati* or *Jaty-bidda* in this country. A woman, who has any criminal connection with a strange man, is excommunicated; but when a married woman is seduced by a *Coicular*, both seducer and cuckold pay a fine of two *Fanams*, or almost a shilling, and the matter is settled in an amicable manner by the hereditary chief. The *Coicular* are allowed to eat animal food, and to drink intoxicating liquors. Many of them read legendary tales, and can keep accompts. Some of them bury, and some of them burn the dead. On both occasions, proper *Mantrams* must be read by a *Bráhman*; otherwise the departed soul inevitably becomes a *Muni*, or a low kind of devil; as is also the case with the souls of all those who are

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killed by accident, whether they may have been good or bad. If the proper ceremonies have been performed, the souls of good men are received into the heaven called *Coilasa;* those of bad men are punished by being born again, either as men or animals. The *Coicular* are of *Siva's* side, but consider *Camachuma,* or *Parvatí,* as the proper deity of their cast. Some of the idols of this goddess are served by priests of the *Coicular,* others by *Pundarum,* and in some large temples by *Bráhmans;* but these never join in the bloody sacrifices that are offered by the low tribes to the idol, and retire whenever the animals are going to be killed. The *Coicular* offer sacrifices also to the *Saktis* and *Munis.* These last are destructive spirits of the male sex, of whom the worship is very common throughout the province of *Coimbetore.* The *Guru* of the *Coicular* is a *Smartal Bráhman,* whose office is hereditary. He gives them *Upadésa,* and consecrated food, water, and ashes, and receives their annual contributions. He either comes round, or his disciples visit for him, once in the year. The *Panchanga,* or astrologer, acts for the *Coicular* as *Puróhita,* and reads *Mantrams* at the annual and monthly commemoration of their deceased parents, at the building of a new house, at marriages, and at funerals. The hereditary chief punishes transgressions against the rules of cast by fine and excommunication. He is assisted by a council, and pretends also to have a jurisdiction in disputes; but in these an appeal is commonly made to the officers of government. The *Coicular* are weavers, writers, or accomptants, schoolmasters, and physicians; and all the dancing women, and musicians attached to them in this country, formerly belonged to this cast; but the decent part of the community have entirely given up all society with these abandoned characters.

Cunchény, or dancing women.

These dancing women, and their musicians, thus now form a separate kind of cast; and a certain number of them are attached to every temple of any consequence. The allowances which the musicians receive for their public duty is very small; yet morning

and evening they are bound to attend at the temple to perform before the image. They must also receive every person travelling on account of the government, meet him at some distance from the town, and conduct him to his quarters with music and dancing. All the handsome girls are instructed to dance and sing, and are all prostitutes, at least to the *Bráhmans*. In ordinary sets they are quite common; but, under the Company's government, those attached to temples of extraordinary sanctity are reserved entirely for the use of the native officers, who are all *Bráhmans*, and who would turn out from the set any girl that profaned herself by communication with persons of low cast, or of no cast at all, such as Christians or Mussulmans. Indeed, almost every one of these girls that is tolerably sightly is taken by some officer of revenue for his own special use, and is seldom permitted to go to the temple, except in his presence. Most of these officers have more than one wife, and the women of the *Bráhmans* are very beautiful; but the insipidity of their conduct, from a total want of education or accomplishment, makes the dancing women be sought after by all natives with great avidity. The Mussulman officers in particular were exceedingly attached to this kind of company, and lavished away on these women a great part of their incomes. The women very much regret their loss, as the Mussulmans paid liberally, and the *Bráhmans* durst not presume to hinder any girl, who chose, from amusing an *Asoph*, or any of his friends. The *Bráhmans* are not near so lavish of their money, especially where it is secured by the Company's government, but trust to their authority for obtaining the favours of the dancers. When a Mussulman called for a set, it procured from twenty to two hundred *Fanams* (from 12*s.* 6*d.* to 6*l.* 4*s.* 9*d.*), according to the number and liberality of his friends who were present; for in this country it is customary for every spectator to give something. They are now seldom called upon to perform in private, except at marriages, where a set does not get

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more than ten *Fanams*, or about 6*s.* 3*d.* The girls belonging to this cast, who are ugly, or who cannot learn to sing, are married by the musicians. The *Nutua*, or person who performs on two small cymbals, is the chief of the set, and not only brings up the boys to be musicians, and instructs all the good-looking girls, born in the set, to sing and dance, but will purchase handsome girls of any cast whatever that he can procure. When a dancing girl becomes old, she is turned out from the temple without any provision, and is very destitute, unless she has a handsome daughter to succeed her; but if she has, the daughters are in general extremely attentive and kind to their aged parents. To my taste, nothing can be more silly and unanimated than the dancing of the women, nor more harsh and barbarous than their music. Some Europeans however, from long habit, I suppose, have taken a liking to it, and have even been captivated by the women. Most of them that I have had an opportunity of seeing have been very ordinary in their looks, very inelegant in their dress, and very dirty in their persons: a large proportion of them have the itch, and a still larger proportion are more severely diseased.

Customs of the *Panchalar.*

The *Panchalar* are a set of artists, who (as their name imports) are of five different trades; goldsmiths, blacksmiths, coppersmiths, carpenters, and masons. By the *Bráhmans* they are reckoned a low kind of *Súdras;* but this they do not readily acknowledge to be true, and say, that they are of the *Vishwa Karma* cast, being descended from the five sons of that person, who lives in heaven, and is the chief artist among the *Brahmá Lóka*, or angels. All the *Panchalar* in southern India wear a thread like the *Bráhmans.* In the dispute about precedency, their hereditary chiefs lead the right hand side. On this account *Coimbetore* has been long divided into separate quarters. In its own quarter, each party may perform its ceremonies in whatever manner it pleases; but it is not allowed to go into the adversary's quarters with any procession. This keeps

the peace; and, although the killing of a jackass is known by report to the natives in this part of the country, it never has been practised. A *Panchala* may follow any of the five arts that he pleases; but there are many divisions among them, that prevent intermarriage. No man can marry a woman of a different nation; a *Telinga Panchala*, for instance, could not marry a woman of this country. Again, a man cannot marry any woman of the same family with himself; and, in order to prevent mistakes, marriages are always made with families who are well known to each other. The men are allowed a plurality of wives, and the women continue to be marriageable after the age of puberty. Widows are not allowed to marry again; nor are they permitted to live with another man in the kind of concubinage called *Jaty-bidda*, of whom none belong to this tribe. Widows, indeed, ought to burn themselves with the dead bodies of their husbands; but, for at least a century, the practice has gone into disuse. When two persons of the cast commit adultery, they are carried before the *Guru*. The man is fined, and the woman is flogged; but, after she has been purified by some consecrated food, and water, her husband receives her back again. If a woman has criminal connection with a man of any other cast, she is excommunicated. Some of these people eat animal food, others do not. They are allowed to drink intoxicating liquors. They never offer sacrifices to any of the destructive spirits, either male or female. The deity peculiar to the cast is *Camachuma*, or *Kalima*, who is, they say, the same with *Parvati*, the wife of *Siva*. The priests in her temples are all *Bráhmans;* but in the southern parts of India no sacrifices are offered to this idol, as is done in Bengal. The images of this goddess in the two countries are very differently shaped. The *Panchalas* are frequently instructed to read and write, and there is a book called *Vishwa Puránam*, which any of them may read. It is written in the vulgar languages. The *Gurus* of the *Panchalas* are not *Bráhmans*, but persons of the cast. They have

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four *Matams*, the authority of all which is equal. One *Matam*, situated beyond the *Tunga-bhadra* river, is under the government of a *Sannyási*, who appoints his successor from among his relations in the male line. The persons of this family who are not called upon to fill this sacred office work at the anvil as usual, and are not too proud to intermarry with ordinary families. The heads of the other three families marry, and their office is hereditary in the male line: one of them, named *Parsamium*, lives at *Tinevelly;* another, named *Vepuru Vencata Achárya*, lives at *Andëuru;* the name of the third, and his place of residence, are unknown to the people of *Coimbetore.* To their followers these *Gurus* read *Mantrams* and *Charitra*, or prayers and legends, in the *Telinga* language. They also bestow *Upadésa*, and receive the gifts called *Dána* and *Dharma;* for which purpose they once a year travel round, and receive from each person a *Fanam* at least.

The *Panchánga* of the village acts as *Puróhita* for the *Panchalar*, and reads to them *Mantrams*, in an unknown language, at marriages, births, the building of a new house, and at the monthly and annual celebrations of the ceremonies for their deceased parents. He also receives the charity called *Dána*.

Torearu.

The *Toreas*, or *Torearu*, are a tribe of *Karnáta*, although many of them have been long settled in this country. They are rather a low cast, and their proper duty is the cultivation of the *Betel-leaf.* Many of them formerly were armed messengers, employed to collect the revenue; but, having been deprived in a great measure of this resource by the reduction made in that body of troops, or rather rabble, they have become small dealers in grain, and cutters of firewood; both of which are considered as low employments. They have hereditary chiefs called *Gotugaras*, or *Ijyamánas*, who with the advice of a council reprimand all troublesome persons, and inflict slight punishments on those who transgress the rules of cast. The *Toreas* may eat animal food, but are not permitted to

drink intoxicating liquors. They are not allowed to marry a second wife, without obtaining the consent of the first; and this is never asked for, if she has any children. The girls continue to be marriageable after the age of puberty, and widows may marry again without disgrace. The bridegroom generally gives his father-in-law forty *Fanams* (1*l.* 5*s.*); but this is only to assist in defraying the expense of the ceremony, which is performed at the father's house, and which costs more money. In cases of adultery, the husband does not always turn his wife away, but contents himself with flogging her. A woman loses cast if she cohabits with a strange man. This cast has two deities peculiar to itself; the one a male, the other a female. The male is called *Sidday Dévaru*, and is usually represented by a stone placed in the *Betel-leaf-garden*. The eldest man of every house acts as priest for his own family, and offers up bloody sacrifices to this stone, in order to appease the wrath of the god which it represents. Once in three or four years a feast is celebrated in honour of *Sidday Dévaru*, in order to induce him to bestow prosperity on the cast. This is done by a contribution, and costs fifteen *Pagodas* (4*l.* 13*s.* 7*d.*). On this occasion *Sidday Dévaru* is represented by a pot, which is placed in a house, and has worship *(Puja)* performed in its honour; that is to say, flowers, and water dyed yellow with turmeric, are poured over it, and incense is burned before its throne. The female deity is named *Urucate*, and is represented by a stone placed in a wood. To this sacrifices and *Puja* are offered eight days after the great feast of *Sidday Dévaru*, and the goddess is solicited to bestow prosperity on her votaries. Although these are the peculiar deities of the *Toreas*, these poor people pray to any image that comes in their way, and use the mark of *Siva*. They have no *Guru*. The *Panchánga* acts as *Puróhita*, and reads *Mantrams* at marriages, and when they build a new house. His fee is a *Fanam* and a half (11¼*d.*). In cases of sickness, the *Toreas* frequently vow *Dáséri* one day in the week; that is to say, to live upon what they can procure by begging.

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Palli.

The *Palli* are a very numerous cast in all the countries where the *Tamul* language, their native tongue, is prevalent. They pretend to be *Súdras*, but are looked upon as rather a low tribe. They have many subdivisions, none of which intermarry with each other; but all can eat in common. Those from whom I have my information are called *Arisha Palli*, and act as cultivators of fields, and of gardens watered by machinery, both as farmers and servants, and also as porters. They have hereditary chiefs, called here *Ijyamána*. On all public ceremonies these receive *Betel* first; and, with the assistance of an assembly of the people, settle disputes, when the members of their tribes are willing to refer the matter to their decision; but a reference to the officers of government is in general preferred. Some of this tribe are able to read and write accompts. They can lawfully eat animal food, and drink spirituous liquors. They are permitted to marry several women, and pay to the father of each from nine to eleven *Pagodas*. The father pays one third of the marriage expenses, and the bridegroom the remainder. Girls continue to be marriageable after the age of puberty; but after that period sell lower than while children. A widow may marry again without disgrace. In cases of adultery within the cast, the husband in general flogs the woman, and takes her back, giving a small fine to his relations; but sometimes he turns her away; in which case the man who seduced her keeps the woman as his wife, and pacifies his relations by a small fine. All this produces no disgrace, either to the woman or to her children. A woman loses cast by criminal communication with any man, except a *Palli;* a man may without disgrace indulge himself with any woman, except those belonging to the *Panchama*, or impure casts.

The gods peculiar to the *Pallis* are a male named *Manar Swámi*, and *Pachumma* his mother. In the temples of these deities the priests are *Pallis*. They are represented by stone images, and, as usual in the province of *Coimbetore*, have placed in the yard belonging to their temple a great many figures in potter's work, which

represent horses, elephants, and *Munis*, or devils, who are supposed to be the attendants of these gods. When a person is sick, he frequently vows to place some of these images of potter's work at the temple of the spirit who is supposed to be the cause of his disease. None of these are ever presented to the great gods of the *Bráhmans*, but only to the deities peculiar to the casts of the lower tribes. No sacrifices are offered to *Mannar*, or *Pachumma*; but they are frequently presented to the attendant *Munis*, of whom a great many have appropriate names and characters; such as *Val*, *Shem*, *Car*, *Vayda*, *Muttu*, &c. They are all males. The *Pallís* frequently offer sacrifices to *Marima*, *Putalima*, and the other *Saktis*, and pray to *Siva*, *Vishnu*, or any thing which they meet, that is called a god.

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The *Panchánga*, or astrologer of the village, acts as *Puróhita* for the *Pallís*, and reads *Mantrams* at their births and marriages, at the annual commemorations of their deceased parents, and at the building of a new house.

Some of the *Pallís* are of *Siva's* side, and others of *Vishnu's*. The former have a *Guru* peculiar to themselves, who is called *Pallí Swámi*, and lives at *Andëuru*. His office is hereditary, and he wears the *Linga*. He receives the charity of his followers, and gives them consecrated food, and holy water. On such as choose to wear the *Linga*, he bestows an *Upadésa;* but very few apply for this, as ever afterwards they must abstain from animal food. The *Pallís* who wear the mark of *Vishnu* have for *Gurus* the *Sri Vaishnavam Bráhmans*.

Mountainous region between *Coimbetore* and *Malabar*.

The hills west from *Coimbetore* are inhabited by *Malasir*, *Mudugar*, *Erīligaru*, and *Todear*. These last cultivate with the plough, and pay rent for their fields. The others cultivate after the *Cotucadu* fashion, and live like those whom I saw on the hills near *Dan' Náyakana Cotay*. Besides plantains, they have for sale honey, and wild ginger, which is the same species with that cultivated. They pay no rent immediately to the government; but are compelled to sell their commodities to a man, who pays an annual duty for this

CHAPTER IX. Oct. 31.

exclusive trade. He may give what price he pleases for their commodities. Those who want timber, or *Bamboos*, hire the hill people to cut them.

Sickness.

31st *October*.—The sickness among my people had now increased so much, that the greater part of them could not proceed farther; and I was forced to employ this day in providing a fresh set of servants.

CHAPTER X.

FROM COIMBETORE TO THE FRONTIER OF MALABAR.

ON the 1st of *November* I went ten *Malabar* hours' journey to *Kanya-uru*, which is a small village without any shops, and is situated at some distance north from the *Noyel* river. The country near *Coimbetore* is fully cultivated, but very bare of trees. A few very fine hedges show how well they would thrive, if all the fields were inclosed. Towards *Kanya-uru* large proportions of the fields are unoccupied, but the country is better wooded. Much of the soil is poor, and all at any distance from the *Noyel* is dry-field. CHAPTER X. Nov. 1. Appearance of the country.

2d *November*.—I went ten *Malabar* hours' journey to *Avanasi*, the residence of a *Tahsildar*. The country looks well; about one half of the arable lands being under cultivation, and many of the fields being surrounded by good hedges, especially those of the *Elanda Moula*, or *Euphorbium antiquorum*. This kind of hedge requires to be annually repaired, by inserting cuttings in the places where old plants have decayed; but large cuttings being taken, and supported by *Bamboos* and thorns, they become immediately a fence sufficient against cattle. Nov. 2. Hedges of the *Euphorbium antiquorum*.

The principal cultivation here is *Horse-gram (Dolichos biflorus)*, with which very little trouble is taken. The ploughing is so rude, that hardly any of the bushes are overturned; and the field at a little distance appears as if it were waste. Many bushes resist even the repeated ploughings given to the fields of *Cambu*, but they are soon overtopped by this vigorous plant. Rude cultivation.

In the vicinity of *Avanasi* are many *Palmira* groves, which in a country so naked give it a good appearance. Here there are two Face of the country.

CHAPTER X. Nov. 2.

reservoirs for watering rice-ground. The one receives all its supply of water from the rain which it collects. The ground irrigated by this tank amounted to eleven *Candacas*, equal to twenty-two *Cheis*, or twenty-nine acres; but, owing to its being out of repair, it now supplies only ten *Cheis*. The other reservoir receives a supply of water from a rivulet called the *Semudir*, which, after giving a supply to another large reservoir, falls into the *Noyel* at *Tripura*. The dam turning the water from the *Semudir* into the reservoir at *Avanasi*, is in such bad repair, that the supply is deficient, and thirty-two *Cheis* only are at present cultivated, of the eighty which formerly were irrigated.

Avanasi.

Before the invasion of General Meadows, *Avanasi* contained two hundred houses, which are now reduced to about fifty, that are chiefly inhabited by the *Bráhmans*, musicians, and dancers belonging to a temple of *Siva*. These people pretend, that their temple is equal in sanctity to the celebrated *Baranasi* at *Kási*; but this pretension is laughed at by their neighbours. In this district there are many weavers, *Coicular*, *Jadar*, and *Parriar*.

Sheep and goats.

Many sheep are bred throughout *Coimbetore*, and especially in this district. Under the term *Bacri*, the Mussulmans here include both the long-legged goat and the sheep. The former, in the native language of this country, is called *Veladu*; of the sheep there are in this place two kinds, the one called *Curumbar*, and the other *Shaymbliar*. The goats here are greatly inferior to those above the *Ghats*; but the sheep, though small, are of a good quality, fattening readily, and making most delicious meat. Even grass-mutton may be had here tolerably fat; for the pasture, although it looks very bare, seems to be more nutritious than that on the banks of the Ganges, where no tolerable mutton can be reared without the assistance of grain. Even the Mussulman officers never thought of fattening their sheep with grain, and indeed made very little difference between fat and lean mutton. A good female goat (*Veladu*), or a sheep of either kind, costs from 4 to 8 *Fanams*, or

SHAYMBLIAR RAM AND EWE

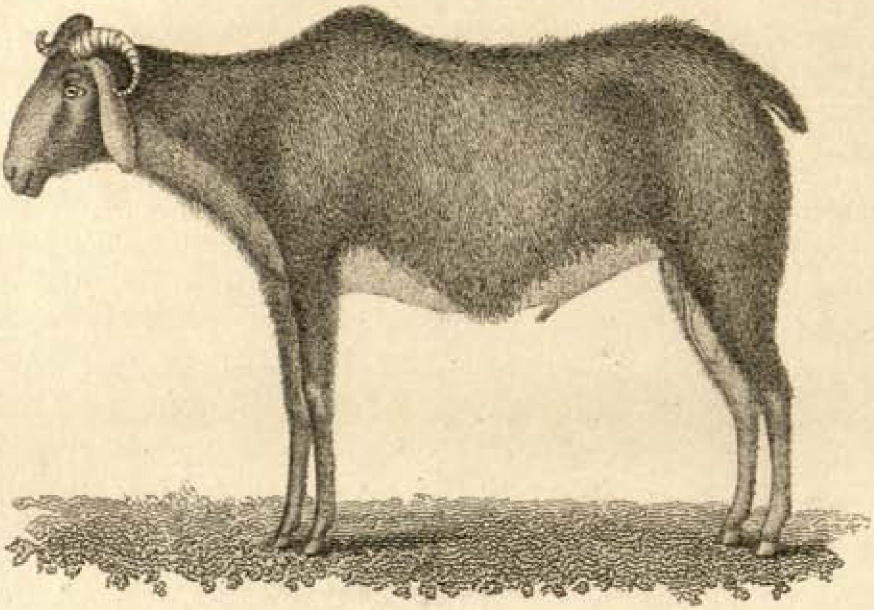

Fig 44.

Fig 45.

CURUMBAR RAM AND EWE

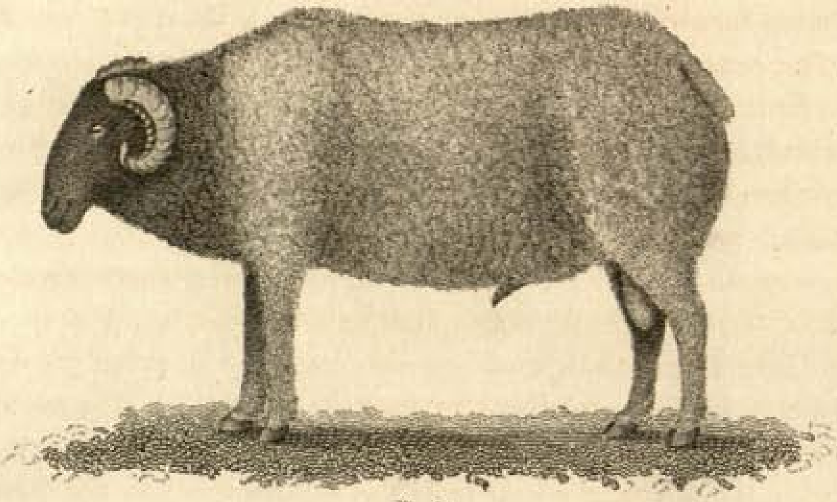

Fig 42.

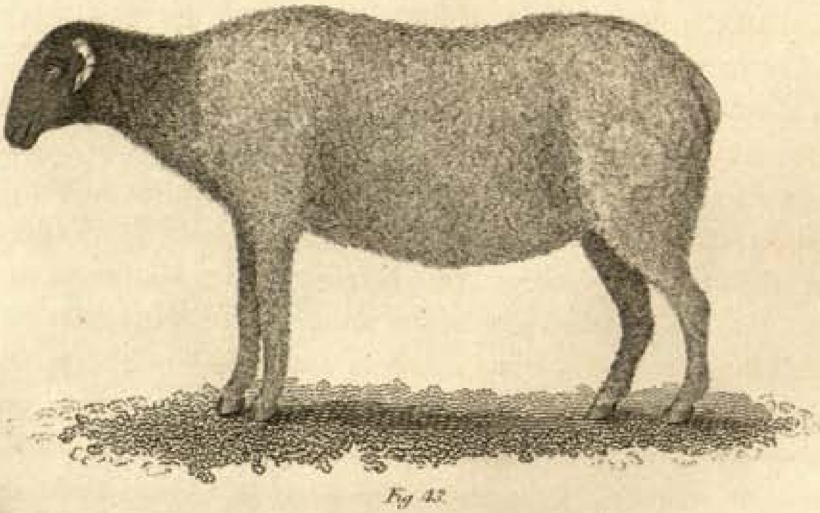

Fig 43.

Warner sc.

from 1*s.* 11¾*d.* to 1*s.* 5¾*d.* A good wether costs from 6 to 5 *Fanams*, or from 2*s.* 11¾*d.* to 2*s.* 6*d.* CHAPTER X.

The *Curumbar* (Plate XVII, Fig. 42, 43.) is a short bodied sheep, with a short small tail, like that of a hare, or goat: the rams have short horns turned back, and their ears are very short and pendulous. The ewes seldom have horns. The wool is thick and curly, and has little or no hair intermixed with it. Here they are in general white, with black heads; but above the *Ghats* they are frequently altogether black. It is of the wool of this kind only that blankets are made. They are shorn twice a year. Nov. 2. *Curumbar* sheep.

The *Shaymbliar* (Plate XVIII, Fig. 44, 45.) is of a thinner make than the *Curumbar*. Their horns and tails are similar; but their ears are longer, and their wool is very scanty, their principal covering being hair. In this country they are generally of a redish brown colour; but in *Mysore* they also are most commonly black. *Shaymbliar* sheep.

Both kinds lamb once a year from the 15th October to the 15th of November. Twice a day, during the two following months, about ¼ of a *Seer*, or about seventeen cubical inches of milk, are taken from each. The long legged goat gives double that quantity for three months after each kid, and breeds twice a year. The milk of all the three, together with that of cows and buffaloes, is mixed for making butter. My Bengal servants acknowledge, that both the *Ghee* (boiled butter) and curdled milk of this country are superior to those of their own, where a preference is given to unmixed cow's milk. Wethers of all the three kinds are made by bruising the testicles of the animals when they are two years old, and never while they are young: the natives prefer the meat of the goat to that of the sheep, and the meat of the *Shaymbliar* to that of the *Curumbar*; which is directly in opposition to the taste of most Europeans. Owing to this, however, the cultivators in general keep only the goats and *Shaymbliars*; while the *Curubas*, or weavers of blankets, keep the *Curumbars*, as these only can supply them with wool. Management of sheep.

CHAPTER X.

Nov. 2.

In *Coimbetore* no kind of cattle are housed at any season. Previous to the ploughing season, they are always folded on the lands that are to be cultivated. In order to increase the quantity of manure, the farmers every where keep sheep and goats; but it is chiefly in this neighbourhood, that the *Curubas* pasture their flocks of *Curumbars*. The *Curubas*, who by the Mussulmans are called *Donigars*, are all of *Karnáta* extraction, and in *Coimbetore* never cultivate the ground. Their sole occupation is feeding their flocks, and weaving their wool into coarse blankets; none of which made here, exceed in value four *Vir'-Ráya Fanams*, or 1*s.* 11¼*d.* Each man possesses from fifty to one hundred sheep, which he pastures on the fields all day without paying any rent; and at night he folds them on the arable lands of the cultivators, who might each give a *Bulla* of grain to the proprietor of one hundred sheep for the manure. Every family of the *Curubas* pays a poll-tax, and there is a duty on their blankets.

Curubas, or shepherds.

Nov. 3. Face of the country.

3d *November*.—I went five *Malabar* hours' journey to *Tripura*, fording the *Noyel* at that town. The country is not so well occupied as that through which I came yesterday; and in every village there are many ruinous houses. The soil is rather poor, but the fields are well fenced. The *Noyel* is a river very inferior to the *Bhawání*, and was easily fordable, although much swollen by a very heavy rain that lasted all night. On crossing this river, I entered the district under Mr. Hurdis. *Tripura* is an open town, containing three hundred houses, with a large weekly market or fair. I observed, that the women here did not conceal themselves when their curiosity prompted them to view me as a stranger. This is also the case in all the country above the *Ghats;* but in the part of *Coimbetore* north from the *Noyel* river, the women in general ran out of my way, and satisfied their curiosity by peeping from behind walls and hedges, as is usual in the country of Bengal.

Tripura, or *Palar* district.

The *Tahsildar* of this district resides at a place called *Palar*, where there is a fort, but only thirty houses, of which fifteen are

inhabited by *Bráhmans.* The district is fifteen *Malabar* hours' journey from north to south, and twelve from east to west. The *Tahsildar* met me with great readiness, to give me an account of his district. He says, that none of it is absolutely waste; as the fields that are not cultivated pay a trifle as a rent for grass. The country suffered little during the invasion of General Meadows, as it lay at some distance from the routes of the contending armies. Last year many of their cattle died of the epidemic distemper. CHAPTER X. Nov. 3.

Land-measure.

The land-measure differs every where in the province under Mr. Hurdis; and all the revenue accompts are kept according to an old measurement made by *Chica Dêva Ráya.* In this district no less than three different land-measures prevail. 1st, at *Palar,* thirty-two *Vaums* or fathoms make one *Russy, Caur,* or chain; which is, therefore, two hundred and sixteen feet. Three chains by two make a *Bulla-sowing,* which is $6\frac{424}{1000}$ acres. 2dly, at *Madupura hobly,* the *Bulla* is a square of sixty-four *Vaums* each side, or contains 4,284 acres. 3dly, at *Tripura,* forty-eight *Vaums* square make a *Bulla-land,* equal to 2,41 acres.

The *Mau,* or *Candaca* of watered land, is equal to two *Cheis* of the new measurement, or contains 2,644 acres.

Dry-measure.

The measures of grain also vary extremely. The *Puddy* varies from 64 to 72 *Rupees* weight of grain, or from $56\frac{82}{100}$ to $63\frac{96}{100}$ cubical inches: four *Puddies* make one *Bulla,* sixteen *Bullas* make one *Morau,* six *Moraus* make one *Podi,* which therefore varies from about $10\frac{14}{100}$ to $11\frac{42}{100}$ bushels.

Weights.

The weights near this are every where the same. 8 *Rupees*=1 *Pull,* 8 *Pulls*=1 *Seer*=0,6067 lb.; also $33\frac{1}{3}$ *Seers,* or 100 *Pulls,* are =1 *Tolam*=$20\frac{1}{4}$ lb.

Money.

Here is established a *Niruc,* or regulation, by which all coins have a certain value affixed to them; and at this rate they are received in the payment of the revenue; but in dealings between private persons attention is not paid to this rule. Accompts are commonly kept in *Chucris,* or *Canter'-Ráya Pagodas,* and *Fanams;*

CHAPTER X.

but the coins commonly current are *Pondichery* and *Sultany Rupees*, and *Vir'-Ráya Fanams.*

Nov. 3. Rice.

On the rice land in this neighbourhood there is only one crop, which is sown after the sprouted manner, from between the 12th of July and the 18th of August. The land is watered partly from reservoirs, and partly from canals, which are brought from the *Noyel* by dams. It lets for from 9 *Chucris* to 4½ for the *Candaca*, or for from 1*l.* 1*s.* 3*d.* to 10*s.* 7½*d.* an acre. The dams on the *Noyel* are said to be 32 in number. Of these four were in this district; but two of them have been so long ruinous, that no accounts remain of the quantity of land to which they gave water. Owing to the want of repairs, rather more than a third of the land formerly watered by the two remaining dams, is now uncultivated. The water from some of the dams on the *Noyel* is applied directly to the fields from the canals; in others, it is previously collected in reservoirs, in order that no more ground may be cultivated than the supply of water is adequate to irrigate.

Dry-field.

For six years past there has been a great scarcity of rain, which has injured considerably the cultivation of the dry-field. About ¼ of what was formerly cultivated is now neglected; and for pasture it has always been customary to leave some of the fields fallow. The whole, however, are now let; but the rent given for those which are in grass is very trifling. The greatest article of cultivation here is *Colu*, or the *Dolichos biflorus*, called *Horse-gram* by the English of Madras; next to that, about equal quantities of *Cambu (Holcus spicatus)*, mixed with *Bullar (Dolichos Lablab)*, and of *Sholum (Holcus sorghum)*; next to those, *Upum* cotton. The other articles cultivated on dry-field are inconsiderable.

The produce of a *Bulla* land, *Palar* measurement, is stated to be 200 *Tolas* of cotton, with the seed, or about 629 pounds an acre.

Cambu seed per *Bulla*, 52 *Bullas* produce 20 *Podis.*
Bullar - - - - 16 - - - - - 2¾

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Cambu seed per acre, $0,\frac{956}{1000}$ bushel, produce $35,\frac{51}{100}$ bushels.
Bullar - - - - $0,\frac{394}{1000}$ - - - - - - $4,\frac{92}{100}$

Seed $1,\frac{35}{100}$ bushel. Produce $40,\frac{43}{100}$

Sholum seed per *Bulla*, 56 *Bullas*; produce 28 *Podis*.
Ditto per acre, - - $1,\frac{03}{100}$ bushel; ditto $49,\frac{78}{100}$ bushels.
Colu seed per *Bulla*, 64 *Bullas*; produce 10 *Podis*.
Ditto per acre, - - $1,\frac{17}{100}$ bushel; ditto 17,77 bushels.

This is the produce of a good soil, as stated by the *Tahsildar*; but it seems to be over-rated.

Extent of a plough-land.

A farmer who has four ploughs, wrought by four men and eight oxen, and who occasionally hires women labourers, can cultivate with dry grains four *Bullas, Palar* measurement. This is at the rate of rather less than six and a half acres for a plough.

Gardens watered by the *Capily*.

The quantity of ground cultivated as garden, and watered by the *Capily*, is in this district very considerable.

In *Palar* and *Chinghery* subdivisions	180 *Bullas*,	or	1156 acres.
In *Madupuru* - - - - - - - -	187 ditto,	or	801 ditto.
In *Tripura* - - - - - - - - - -	159 ditto,	or	383 ditto.
			2340 acres.

It produces *Sholum (Holcus sorghum)*, *Cambu (Holcus spicatus)*, *Kevir (Cynosurus corocanus)*, *Meti*, or fenugreek *(Trigonella fœnum græcum)*, wheat of the *Hotay* kind *(Triticum spelta)*, *Jiray* and *Danya*, two of the carminative seeds, tobacco, garlic, onions, *Tenay (Panicum italicum)*, *Banguns (Solanum melongena)*, and capsicum. Almost every farmer cultivates some of this ground.

Pasture.

The whole land in this district is said to be arable; but certain of the poorest fields are set aside for pasture, and pay a small rent. Some of them continue always in grass; others are alternately cultivated for *Horse-gram (Dolichos biflorus)*, and produce grass. Four *Bullas* of *Palar* measurement ($25\frac{1}{4}$ acres) are reckoned sufficient pasture for 20 oxen. In the dry season, they must be either sent

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to the hilly country, or fed with the straw of *Sholum*, or *Cambu*, the two species of *Holcus* cultivated in this country.

Nov. 3. Rent.

A man who has four ploughs, four or five servants, with occasional labourers, and sixteen oxen, is said to cultivate $\frac{1}{2}+\frac{1}{8}$ *Bulla* ($4\frac{161}{1000}$ acres) of garden, and $3\frac{3}{4}$ *Bullas* ($24,\frac{1}{10}$ acres) of dry-field, and has $1\frac{1}{2}$ *Bulla* ($9,\frac{64}{100}$ acres) of pasture: in all, 37,9 acres: for this he pays 1220 *Sultany Fanams* a year, which would be at the rate of 1*l.* an acre for the average rent of the whole district. Another man is said to have $\frac{3}{4}$ *Bulla* ($4,\frac{82}{100}$ acres) of garden, 1 *Bulla* ($6,\frac{426}{1000}$ acres) of dry-field, and $\frac{1}{2}+\frac{1}{8}$ *Bulla* ($4,\frac{142}{1000}$ acres) of pasture; for which he pays 850 *Fanams* a year, which is at the rate of 1*l.* 14*s.* 5*d.* an acre. Both these statements were given me by the *Tahsildar*, with much seeming accuracy, from the public accompts; but they appear to me perfectly absurd. He was entirely a man of paper, and came prepared to show long statistical accompts, on which, it seemed to me, no reliance could be placed.

Want of curiosity in the natives.

I did not wonder at the *Tahsildar* being ignorant of the neighbouring country, as he was not a native of the place; but in the whole town he could not find a person that could inform me of the place where the iron sold in their weekly markets was made: all agreed, that it came from the neighbouring district, called *China Mali;* but every one differed concerning the village.

Nov. 4. Face of the country.

4th *November*.—I went ten *Malabar* hours' journey to *Tallawai Pallyam*, as being the most likely place to find the iron forges; but in this I was disappointed, no iron having been ever made there. Some parts of the country through which I passed were well cultivated, while others were quite waste. Although the soil is in general poor; yet traces remain to show that the whole has once been cultivated; and there are many excellent fences even in places where the fields are waste. The quantity of rice ground is very small, and I saw none of it cultivated, although I passed under the bank of a large reservoir, containing much water. I passed another large reservoir, with a stream of water running through it;

but its bank was broken. The canals from the *Noyel* and its branches are very small, and would be employed to most advantage in filling reservoirs. As I approached *Tallawai Pallyam,* I saw some small conical hills scattered through the country, which derives its name from that circumstance, *China Mali* signifying *little hills. Tallawai Pallyam* is a poor village without a shop, and contains only twenty houses. The cultivators say, that for five years past there has not once been enough of rain to fill their tank, and this has been the case with a great part of the province. The produce of dry grains during the same space of time has not been more than one half of the usual quantity.

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Nov. 4.

Languages.

The names of plants in *Coimbetore* are quite different from those given to the same at *Tritchenopoly,* although in both countries the language of the *Tamuls* is spoken. The *Tamul* of *Coimbetore* is perfectly intelligible to my Madras servants, although natives of a different *Désa.* Among the Mussulmans it is called the *Arabi* language, and their own northern dialect is here called the *Asmani.*

Nov. 5.

Iron forges.

5th *November.*—I went a short stage to *China Mali,* and by the way examined a forge for smelting iron, at a village named *Cottumbally.* It is wrought by the low people called *Siclars;* and the plan is nearly the same with that of the forges above the *Ghats;* but it is in every respect more miserable. The furnaces are built in the open air; so that in the rainy season they cannot be used; and the bellows, being made of a goat's skin, give very little wind. The man who works it sits on a stone, and, holding the bag between his legs, presses down the end with his right arm, and raises it with the same. The bag at each time is not half emptied, and in fact a pair of common kitchen bellows would give as much wind. The furnace has a lateral slit, close to the ground, for letting out the vitrified matter. The iron is taken out in front. The furnace is first filled with charcoal, then a small cupful of black sand is put on the top. As it burns down a scoopful of charcoal and another cupful of sand are added; and this is continued from

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early in the morning until three or four in the afternoon, when a mass of iron is formed and removed; and this is the whole day's work. The cup contains about half a pint, and the scoop about three quarts; so that the expenditure of fewel is immense. The mass of iron is very imperfectly fused. The sand is found in the channels of little torrents, which wash it down from the hills in the rainy season. Much of it, I am told, comes from a village called *Vir' Sholavarum,* in *Canghium* district, which is on the south side of the *Noyel.*

Some people of the *Shanar* tribe, who make iron near *China Mali,* tell me, that when they take the mass of iron from the furnace, they immediately cut it in two with a strong *Kudali,* or hatchet. In this state it is sold to the blacksmiths, who by repeated heatings and beatings reduce each portion to a small bar. Four *Shanar* work at each furnace, every one performing a part at each stage of the business. In the rainy season they collect the sand. Then they make the charcoal; and finally, in an interval of about three months between the crop seasons of the *Palmira* and coco-nut palms (*Borassus flabelliformis* and *Cocos nucifera*), they smelt the iron. They pay a thirtieth part of the iron smelted to the government, besides a duty for permission to cut timber for fewel.

At almost every village in the *Perinduru* district, iron is also smelted from black sand.

Strata near the *Noyelar.*

Throughout the country watered by the *Noyelar,* the *strata* are vertical, and composed in general of aggregate stones in a slaty form. The *strata* run nearly east and west; and in many places, especially near rivers or torrents, have been over-flowed by the *Tufa calcaria,* already frequently mentioned. The sporadic concretions usually found above the *Ghats,* and the great diffused masses found in *Coimbetore,* seem to consist exactly of the same materials. The whole calcarious matter, however, in *Coimbetore* is by no means in large beds; many sporadic concretions are every where to be found.

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Nov. 5. Face of the country.

The country through which I passed to-day, except where occupied by the small conical hills, is nearly in the same state with that described yesterday. Although the people complain of a want of rain, I passed a large reservoir full of water, which is not applied to irrigate the fields.

Hedges of *Mulu-kilivay*.

Many of the hedges here, and in other parts of *Coimbetore*, are made of a thorn called *Mulu-kilivay*. It seems, from its habit, to be a *Rhus;* but, not having found the fructification, I am very uncertain concerning its place in the botanical system. It makes a very good fence: cuttings, three or four cubits long, are put in the ground between the 12th of March and the 10th of April. The ends are buried in the earth about a span, and very soon shoot out roots. From the moment it is planted, it forms a fence against cattle; but seems to require a better soil than either the *Euphorbium Tirucalli*, or the *Euphorbium antiquorum*, which are the most common hedges here, and will grow any where.

Low state of the arts.

The people of *China Mali* are either unwilling to give me any information, or are in a beastly state of ignorance. In the whole town I could not procure means to weigh a piece of iron half the produce of one smelting. The inhabitants of this province, indeed, appear to be as far behind those of *Mysore* in intelligence, and in most of the arts, as these again are behind the natives of Calcutta or Madras. As is the case in every part of Bengal where arts have not been introduced by foreigners, the only one that has been carried to tolerable perfection is that of weaving.

Population.

In the reign of *Hyder*, *China Mali* contained above 200 houses. These are now reduced to 125, of which 17 belong to *Bráhmans*, who keep 18 houses of dancing-girls and musicians, leaving 90 houses for those who are supported by honest industry. Of these, 41 are inhabited by weavers, 5 by shop-keepers, and 7 by cultivators.

Small-pox.

The small-pox has been lately raging in the town, and is said to have proved fatal to 100 persons; a very terrible mortality in so

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small a place! Inoculation is unknown to the natives; and the mention of it excites their astonishment and abhorrence. They trust for cure to the application of the leaves of the *Melia Azadirichta*, a tree that is sacred to the goddess *Marima*, who inflicts this dreadful distemper. The priest *(Pujári)* at her temple is a *Handy*, a person of very low cast; yet in these times of affliction he gets presents even from the *Bráhmans*. The disease having now stopped, a grand sacrifice is to be performed at night, in order to thank the angry deity for having restrained her wrath. In this, however, the *Bráhmans* do not join. The number of singers, drums, horns, and other powerful sources of noisy discord, which have been assembled for the occasion, leave me no room to hope for sleep.

Nov. 6. Face of the country.

6th *November*.—I went five *Malabar* hours' journey to *Perinduru*. The soil of the country through which I passed is in general poor, and not much of it cultivated. There are few fences, but a good many gardens of the *Palmira* tree, or *Borassus*. The *Tahsildar* says, that the whole rice-ground in the district is of very little extent. Two canals from the *Noyel* come through it. The one fills a reservoir, the water from the other is applied directly to the fields; but the extent watered by both means is inconsiderable. In the district of *China Mali* there is no rice-ground. In this district there is also much land watered by the *Capily*, and cultivated for what is called here *Tarkári*. The rent of such land is higher than that of dry-field. The *Tahsildar* says, that three quarters of the district are now waste, owing to a want of people. To me it appears, that he over-rates the population greatly; but he says, that many of the waste fields are of a very poor soil; and, although they have been once or twice cultivated, they were found not to repay the labour bestowed on them, and have ever since been neglected. I doubt much the accuracy of this statement; for I see fields now cultivated, that are apparently of as bad a soil as those which are waste. By the way, I passed one village totally in ruins. The people say, that since the death of *Hyder* they have not had one year with a

proper fall of rain. This year there has been abundance, but it came too late by two months. CHAPTER X.

Nov. 6. *Perinduru.*

In this district there about 800 looms. *Perinduru*, the chief town, contains at present 118 houses, of which 24 are inhabited by *Bráhmans*, most of whom are attached to a temple. It has a mud fort, which is not inhabited; and there are many ruins in the town. The temple had formerly lands producing 10,000 *Gópály Fanams* (139*l.* 13*s.* 3*d.*) a year. It is now allowed 1018 *Rupees* (103*l.* 1*s.* 4½*d.*) a year to support its establishment. The village gods have small *Enams*, or lands for which they pay half-rent. There are besides lands, belonging both to Mussulmans and *Bráhmans*, dedicated to the service of God; and these lands are either free, or pay a very trifling rent. The Mussulmans, on account of their lands, are bound to perform certain ceremonies; but the *Bráhmans* may do as they please. These free lands (*Enams*) may be mortgaged by what is called *Bhógyam*: the money is advanced for a certain term of years, the lender taking the produce of the land for interest; and the property is entirely forfeited, if at the stipulated time the money be not repaid. By this means, as is usual all over India, the lands originally intended for the support of religion are now perverted to quite different purposes.

Lands granted for the support of worship.

Nov. 7.

7th *November*.—I went eight *Malabar* hours' journey to *Erodu*, or, as it is called in our maps, *Eroad*. The country through which I passed is in a state similar to that between *China Mali* and *Perinduru*, and contains no rice lands.

Erodu.

Erodu has a large mud fort, occupied by a battalion of *Sepoys*, which, in this part of the country, now procures a ready supply of recruits. *Tippoo's* soldiers now begin to enter readily into the Company's service, the late augmentation of the *Sepoys'* allowances having had a most excellent effect. In the government of *Hyder* the suburb contained about 3000 houses. *Tippoo's* government had reduced them one third part, and the whole was entirely destroyed during the invasion of General Meadows. It is now rising up again,

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and contains about 400 houses. The situation is fine, and healthy; and the place will probably soon attain its former importance, its centrical position rendering it very fit for a military station. The weavers in this district amount to 2050 persons, *Coicular*, *Jadar*, and *Parriar*. These last are said to make the best cloth; but the whole is very coarse.

Irrigation by a fine canal.

The canal, coming by *Erodu* from the *Bhawání*, is an excellent work, and waters a narrow space of ground fifteen *Malabar* hours' journey long, and of various breadths. At this place the canal is carried over a small rivulet by means of an aqueduct. It is said that formerly it extended all the way to *Caruru*, and was carried over the *Noyel* river by means of an aqueduct, that must have been a great work. The whole is said to have been made by a *Vaylalar* farmer, named *Caling Ráya*, who being a rich man, and of great influence, raised from among the people of his cast a sum sufficient for the purpose. This was more than 400 years ago. His family is extinct, and never seems to have received any reward in lands on account of the grand work that he completed. The lands watered by it at present amount to 1045 *Mau*, or *Candacas*, which have been found to measure from 2 to 3 *Cheis* each; and, taking the medium, the whole will be 3459 acres, of which about 83 only are waste. In this district the waste dry-field amounts to 400 *Bullas*, or about 1713 acres.

Nov. 8.

8th *November*.—I remained at *Erodu*, and procured the following statements from the *Tahsildar*, a very intelligent *Bráhman*.

A *Mau* or *Candaca* of watered land is here so much as will sow 100 *Seers* of rice in the sprouted-seed cultivation. The *Seer* is equal to 80 *Rupees* weight, and therefore the quantity of seed for an acre will be very little less than one bushel. The best land lets at 250 *Sultany Fanams*, and the worst at 60 for the *Mau*; which is at the rate of from 2*l.* 7*s.* 1½*d.* to 11*s.* 4*d.* an acre. Both sprouted seed and transplanted cultivations are in use, and the former is most prevalent. One kind of rice called *Mulaghi* requires eight

months to ripen, and is sown between the 13th of July and the 19th of August. No other crop can follow it in the same year. In a good crop it produces 30 *Mau* from a *Candaca* land, or about 30 bushels an acre. CHAPTER X. Nov. 8.

The other kinds admit of two crops in the year; producing in both, when they are good, from 45 to 49 bushels an acre. The first crop is of a kind of rice called *Anadanum*, which is sown between the 12th of May and the 12th of July, and ripens in five months. It produces about 25 bushels an acre. Three kinds of rice, *Sambau*, *Déva Ráya Sambau*, and *Shindalay*, are sown as a second crop, between the 14th of November and the 10th of January, and ripen in six months. The first in a good crop produces 24 bushels, the two latter about 20 bushels, an acre.

Difference in the produce of sown and transplanted rice.

Although the supply of water here is equally good and regular with that at *Nala Ráyana Pallyam*, and the produce here is very much less than at that place, yet we need not thence conclude that the statements given at the two places are erroneous; for the greater fertility of the rice ground at *Nala Ráyana Pallyam* may arise from the transplanted cultivation having been there adopted; while here the sprouted-seed is still retained, the inhabitants not having been forced by a high rent to exert themselves.

Dry-field.

The dry-field here lets for from 40 to 10 *Sultany Fanams* the *Vullam*, which is of the same extent as that of *Coimbetore*. The rent for the acre is therefore from 5*s.* 10*d.* to 1*s.* 5½*d.* In the following Table will be seen an estimate of the seed and produce of one *Vullam*, and one acre, cultivated with the different articles raised on this kind of ground.

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Table explaining the cultivation of dry-field at *Erodu.*

	Of one *Vullam.*		Of one Acre.	
	Seed.	Produce.	Seed.	Produce.
			dec.	dec.
Cambu, or *Holcus spicatus* -	6 *Vullams*	2 *Podis* -	Bushels 0,1852	Bushels 5,926
Muchu-cotay, or *Dolichos Lablab* - - - - -	1 ditto -	2 *Moraus*	- - 0,0308	- - 0,247
Total - -	- - -	- - -	- - 0,216	- - 6,173
Sholum, or *Holcus sorghum*	6 *Vullams*	8 *Moraus*	- - 0,1852	- - 0,988
Tat' Ellu, or *Sesamum* - -	½ *Vullam*	6 *Vullams*	- - 0,0077	- - 0,185
Total - -	- - -	- - -	- - 0,1929	- - 1,173
Shamay, or *Panicum miliare*	6 *Vullams*	8 *Moraus*	- - 0,1852	- - 0,988
Wulindu, or *Phaseolus minimoo* - - - - - - -	6 ditto -	3 ditto -	- - 0,1852	- - 0,37
Pacha Pyru, or *Phaseolus Mungo* - - - - - -	6 ditto -	3 ditto -	- - 0,1852	- - 0,37
Tovaray, or *Cytisus Cajan*	3 *Puddies*	1 ditto -	- - 0.00231	- - 0,123
Nadum cotton - - - -	1 *Tolam* -	5 *Tolams*	- lb. 4,7619	lb. 23,8095

No *Upum* cotton is raised here. The produce of the *Sholum, Shamay,* &c. seems to be greatly under-rated.

Capily gardens.

The garden ground watered by the *Capily* lets for from 260 to 30 *Sultany Fanams* a *Vullam,* or from 37*s.* 10½*d.* to 4*s.* 4½*d.* an acre. The chief articles of produce in them are as follow:

Sholum, or *Holcus sorghum.*

Seed per *Vullam* 6 *Vullams.* Produce in good ground 4 *Podis.*
Ditto per acre 0,$\frac{1852}{10000}$ bushels. Ditto ditto - 11,$\frac{851}{1000}$ bushels.

Kevir, or *Cynosurus corocanus.*

Seed per *Vullam* 6 *Vullams.* Produce in good ground 4 *Podis.*
Ditto per acre 0,$\frac{1852}{10000}$ bushels. Ditto ditto - 11,$\frac{851}{1000}$ bushels.

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Tobacco.

Produce per *Vullam*, in good ground - -	7 *Tolams*.
Ditto per acre - - - - -	49½ lb.

The produce of this kind of ground seems also to be greatly under-rated by the *Tahsildar*.

Palm gardens.

In the beginning of *Tippoo's* reign there were here a few plantations of coco and *Betel* palms; but they have since been ruined. Orders have now been given to plant 20,000 of these palms, and 100,000 *Palmiras (Borassi)*. In a country so bare of trees, this last is very useful for building. In a good soil it grows up in thirty years, in a bad one it requires fifty.

Nov. 9. Irrigation by canals.

9th *November*.—I went a very long stage, called ten *Malabar* hours' journey, to *Pashar*. The canal from the *Bhawáni* continued near my route on the left, and goes on three *Malabar* hours' journey farther, to a place called *Colanelly*. The high ground on my right was in general very poor. Of what is tolerably good a large proportion is cultivated. *Pashar* is an open village, containing 130 houses, of which 40 are inhabited by *Bráhmans*. There is, however, only one small temple that has a *Bráhman Pújári*, or priest. The others have betaken themselves to honest industry, and rent the lands which they formerly held in *Enam;* that is to say, almost the whole rice-ground belonging to the place. They are said actually to have put their hands to the plough. Great complaints are made here, of a want of rain.

Industrious *Bráhmans*.

Rocks of schistose quartz.

I observed near *Pashar* very large rocks of white quartz, in which it is evidently disposed in plates, like schistus, from one quarter of an inch to one inch in thickness, standing vertically, and running east and west in the direction of the common strata of the country.

Nov. 10. Face of the country.

10th *November*.—I went eight *Malabar* hours' journey to *Codomudi*, a town on the bank of the *Cavery*. The road is interrupted by several torrents, swelled much by the heavy rains. A great part

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Nov. 10.

of the route led me through a country fully cultivated and inclosed; and, although not so well wooded as England, yet I think, on the whole, the most beautiful that I have seen in India. The *Cavery,* which at present is a noble river, and many hills scattered through the country, add much to the beauty of the scenery. The soil is however in general poor, and near *Codo-mudi* many of the fields are waste. *Codo-mudi* has a temple, said as usual to be of great antiquity, and provided with an establishment of 11 *Bráhmans,* and 21 musicians and dancing-women. It is a poor building; but, this being a holiday, it was crowded with multitudes of all ages and both sexes, many of whom were prostrated before the images. The houses in *Codo-mudi* are 118, of which 28 are occupied by *Bráhmans.* It is a new town, and money has been advanced to assist the people to build houses. *Colanelly,* which we passed on the way, has been deserted. At this place a canal is taken off from the *Cavery,* without the assistance of a dam. A canal of this kind is called a *Corum.* In the dry season this is carried across the channel of the *Noyel,* and waters the fields near *Pogolur.*

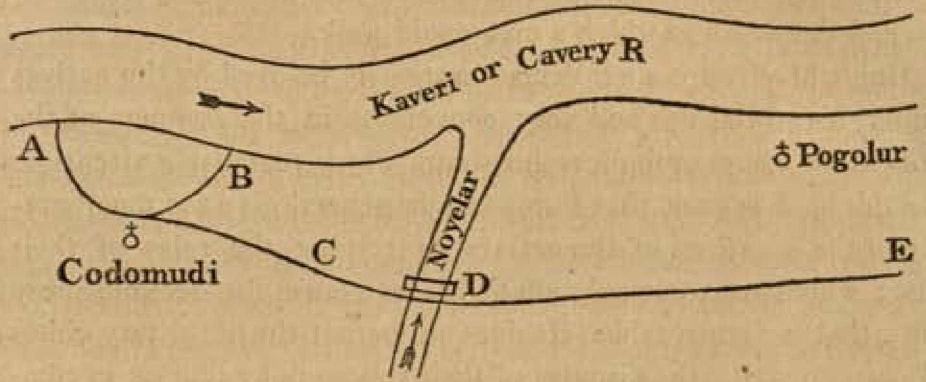
Enamdars, or persons holding free lands.

The *Bráhmans,* who now live here, were formerly all *Vaidíkas,* or men dedicated to religious meditation; and in *Hyder's* government lived on the opposite bank of the *Cavery,* where they had *Enams,* or free lands. Having lost this property, they have been obliged to rent some lands, which they cultivate by means of their servants.

Nov. 11. Irrigation. Canals.

11th *November.*—I went seven and a half *Malabar* hours' journey to *Pogolur,* in the district under the management of Mr. Hurdis. By the way, I visited the place where the *Corum,* or canal taken from the *Cavery* at *Codo-mudi,* is conducted over the river *Noyel.* In the rainy season, the water taken from the *Cavery* at A, in the annexed plan, is allowed to fall again into that river by the passage B; for the quantity of water in the *Noyelar* is then sufficient to supply the canal DE. But in the dry season, when the *Noyel* is absorbed by the sands of its extensive channel, the water of the *Cavery* is conducted to D by the canal A.C.D, and is conveyed across the

channel of the *Noyel* by a temporary dam of earth (D), erected immediately below the course of the canal. CHAPTER X. Nov. 11.



In *Pogolur* village, this canal supplied with water 200 *Canays*, or 265 acres of rice-land, besides much in some other places. The whole of the rice-lands are cultivated; and, according to the village accompts, three-fifths of the dry-field in *Pogolur* are also cultivated. *Pogolur* is a small village without shops, and contains only about one half of the houses that it did in *Hyder's* government. Few of the fences near it are good; but there is much good soil, especially near the *Noyelar*. Appearance of the country.

The whole of the rice-lands are occupied by the *Bráhmans*, to whom they formerly belonged in *Enam*, or free gift. *Tippoo* made them pay a moderate rent of four-tenths of the produce. Last year this was converted to money, at the rate of 22 *Rupees* for the ten *Canays*, which is about 3*s.* 5½*d.* an acre. Their *Enams* may therefore be considered as still valuable property. The rent for this year has not yet been fixed. One half of these lands produce annually two crops of rice. Four *Bráhmans* hold the whole, and are called *Potails*. These let them out to other *Bráhmans*, who cultivate them by means of servants. *Enamdars.*

12th *November*.—I went to visit Major Macleod, the collector of the northern division of the *Coimbetore* province; and having passed the day with him at *Pramati*, on the east side of the *Cavery*, Nov. 12. Information procured from Major Macleod.

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I returned at night to *Pŏgolur.* The river here is about six or eight hundred yards wide, with a strong but smooth current. It is shallow; and, even at this season, not above forty yards of it exceed the depth in which a man could walk.

Hindu casts.

Major Macleod is a gentleman extremely beloved by the natives under his authority, and very conversant in the manners of the *Hindus,* to whose prejudices he shows every reasonable attention. He thinks, however, that Europeans in general give too much credit to the assertions of the natives concerning the rules of their cast; which are commonly alleged as an excuse for declining any duty that is disagreeable. He does not permit the hereditary chiefs of casts to settle the disputes of their followers by fine or excommunication; and has had no difficulty in making persons be again received into society, who had been made outcasts owing to the pique or caprice of leading men. In cases of complaint against any one for his having infringed the rules of cast, he orders an assembly of the most respectable people of the tribe to meet in the public office before the *Tahsildar,* who inquires into the business; and, after having consulted the assembly concerning their real customs, decides on the nature of the guilt, and its appropriate punishment. Any person who is troublesome, and refuses to submit to the decision of the *Tahsildar* and assembly, is immediately banished from the district.

Right and left hand sides.

He has had no great difficulty in allaying the disputes between the right and left hand sides. He has caused arbitrators from both sides, men of prudence and temper, to meet in the public office, and there to come to an agreement concerning what the custom should be. A copy of this agreement is given to each of the parties, and another to the *Tahsildar,* who is ordered to enforce it both by fine and corporal punishment. When it has been necessary to divide any town into separate quarters for the two sides, the party insisting on any adversary's removing to his own quarter must build for him a new house. Any man may retire from his adversary's quarter, whenever he pleases.

CHAPTER X. Nov. 12. Tenures.

Major Macleod says, that the custom of the country has always been understood to be, that no tenant could be turned out of his possession so long as he paid his rent. Under the former government, however, the officers of revenue removed the tenants as they pleased, and gave the best land to their favourites. This will always be the case, wherever the principal officer of a province is not very alert in redressing injustice, and very accessible to the lower classes of inhabitants; which is rarely the case among the natives of rank. Every village had a register, containing a valuation of its arable lands, which is always said to have been made by some prince, or governor, and called by his name; there having, however, been no other copy than that in the possession of the village accomptant, there was no check upon him and the head-man. These officers therefore were constantly varying, for corrupt purposes, the rates of the different fields; and, if they took care to keep the total amount the same, they might make the assessment on the fields held by themselves and friends quite light, and lay what they ought to pay on their neighbours, or on lands that were not occupied. Major Macleod thinks, therefore, that in justice no attention ought to be paid to these valuations; and accordingly, in the *Saliem* part of his district, has made a new valuation of the whole. He is also of opinion, that this valuation should only be continued for a specific number of years; at the end of which the government may have an option of increasing the rent, in proportion to the improvement of the country, and to the progressive diminution of the value of the precious metals. This he would do by laying a per-centage upon the whole, which seems to me liable to many objections. He admits, that in the course of a few years the present valuation must become an unequal tax; but he thinks that a new valuation at the end of every lease would be attended with great difficulty, and open a door for numerous abuses. Under the administration of a weak or corrupt collector, it no doubt would do so;

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but with such men as the collectors brought up under Colonel Read, I have no doubt of its being attended with the greatest benefit, both to the government and to the tenant.

Division of crops.

Major Macleod thinks it impracticable for the government to avoid the most excessive embezzlement, in receiving rent by a division of the crops. It might be done by a petty *Polygar*, but not in any large government. When the Company obtained possession of the *Saliem* country, the rice grounds that are watered by the fine canals from the *Cavery* were rented by a division of the crops. At that time a great part of these grounds was waste, and the rents were low, and collected with difficulty. The changing them into a fixed revenue, to be paid in money, occasioned murmurs at first; but the whole lands are now cultivated; tenants are eager to procure them, and the revenue is greatly increased. In fact, the stimulus of rent raised with moderation, according to circumstances, is the best source of industry in every country, and hence contributes equally to improve the revenue and the condition of the tenantry.

Zemindars, and renters of districts.

At present, the whole public lands are held immediately of the government, and none are farmed out to collectors, or hereditary *Zemindars*. The former are always oppressors; and, although the latter give a security and ease in collecting the revenue, there can be little doubt, that hereditary proprietors of large landed estates are a political evil in a country governed by foreigners. The regulations introduced by Colonel Read for collecting the revenue, seem to me sufficient to secure the regular payment of more than can ever be procured from *Zemindars;* and I am persuaded, that any deficiencies must arise either from a neglect of duty, or from dishonesty in the collectors. I here allude to hereditary *Zemindars*, merely as affecting the revenue, and political state of the country: they must be considered as useful toward the improvement of agriculture.

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Enams, or lands rent free.

There are some small *Enams*, or private properties in land, but none of great extent. Major Macleod proposes, that the lands formerly belonging to the *Bráhmans* should be restored to them, at a rent somewhat lower than could be procured by letting them to the best bidder; but their extent, and the rent to be paid for them, should be defined in the usual manner. The *Enams*, as well as the pensions granted by *Hyder* and *Tippoo* to Mussulman establishments, have been continued. The *Enams* belonging to the *Gráma Dévatas*, or village gods, have been all measured, and valued on actual inspection by Major Macleod, who has reduced their size where they seemed more extensive than was necessary to support the expense of the usual ceremonies. The lands belonging to the temples of the great gods have been entirely reassumed; and in their stead monthly pay is given to the necessary attendants. On the whole, the quantity of *Enam*, or land not belonging to the public, is very small; but it is looked upon by Major Macleod as highly injurious. He allows, that it is better cultivated than the land belonging to the public; but this arises from the *Enamdars* letting the whole of their lands at a very low rent, and thus seducing away the tenants of the government. In the present state of the country, the *Enamdars* are content to get any rent, rather than allow their lands to be waste; and when the population recovers, they will raise their lands as high as the government does.

Village officers.

Major Macleod alleges, that the chiefs and accomptants of villages have no just right to the hereditary possession of their offices; and says, that it was always by means of bribery and corruption, that the son of a person who had been turned out for mismanagement, was permitted to enjoy his father's office. I admit the utility of Major Macleod's system; but am persuaded, that it is contrary to the customary law of the natives.

Condition of the people.

The cultivators and peasantry continue exactly in the same dress, and same houses, that they used in *Tippoo's* government, and have a prejudice against changes. Major Macleod thinks, that their women

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are beginning to wear more gold and silver in their ornaments than they formerly did. The merchants and manufacturers are evidently improving in their manner of living, are forsaking their pyramidical or conical huts, and are erecting tiled houses. To enable them to do this, government, without charging interest, advances money, which is repaid by instalments.

Stamp duty on cloths.

The manufacturers are now satisfied, that the stamp-tax will be on the whole easier to them, than the different duties on looms, houses, and transit, which it supplants; and, from the ease of collection, it will be more productive to government. The custom-houses which are at present farmed, do not in Major Macleod's opinion impede trade, and the revenue which they produce is considerable. Fixed rates are pasted up at every custom-house; and a copy is given to the *Tahsildar*, who is bound to protect every trader from delay or imposition on the part of the farmer.

Determination of civil causes.

All disputes are settled in open court, by arbitrators mutually chosen; and these are not permitted to retire until they decide the cause, in order to leave no room for corruption and intrigue; against which, among the natives, it is necessary to guard with the utmost vigilance. This seems an admirable plan, and much superior to the commissioners in Bengal. In fact, the *Tahsildar*, with this assistance, seems fully adequate to manage the collection of the revenue, the police, and the judicial department; but without the active inspection of an intelligent superior, there is great room for abuse.

Coin.

The present state of the coin is a serious grievance, and bears heavy on the poor. Major Macleod thinks, that a uniform coinage, with pieces forming aliquot parts of each other, would be so willingly received by the inhabitants, that, without a murmur, they would, for new money, pay into the collector's treasury all their old coin, at such a discount as would defray the expence of the mint. The only difficulty in the whole measure would be, to procure a sufficient quantity of new coin.

The *Bagait*, or gardens watered by the machines called *Capily* and *Yatam*, are of great importance. This manner of cultivation enables a small extent of ground to support many people, and to pay a high rent; and it is less liable to fail, from a want of rain, than the common cultivation of the dry-fields. Major Macleod therefore advances money to every farmer who engages to dig a well. This advance is repaid in between eighteen months and two years. For the first year a garden pays only the rent which it did while cultivated as dry-field; in the second year, one half of the additional rent is laid on; and in the third year it pays the full rent.

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Capily gardens, or *Bagait*.

Where the water is near the surface, Major Macleod prefers the *Yatam*, as the cheapest manner of irrigating a garden; but where the water is far from the surface, he prefers the *Capily*. He has not however ascertained, by actual experiment, the relative advantages of these two machines.

Machinery for irrigation.

13th *November*.—I went ten *Malabar* hours' journey to *Caruru*, or *Caroor*. A considerable proportion of the country is not cultivated, and there are very few fences. The soil is in general poor, with many projecting rocks, especially of pure white quartz, among which are found irregular masses perfectly pellucid. There is a quarry near *Caroor*, of a stone called *Carum-gull*, or the black stone. It differs from the hornblende of *Mysore*, being mixed with felspar; but is used for the same purposes, and is called by the same name.

Nov. 13. Appearance of the country, and *strata*.

Caruru is a considerable town, situated on the northern bank of the *Amara-wati* river, and having at a little distance from it a neat fort, containing a large temple, and a garrison of *Sepoys*. The town contains 1000 houses. Its merchants seem, however, to be chiefly petty dealers, nor are the weavers in the place numerous.

Caroor, or *Caruru*.

Lands now waste, but formerly cultivated, in this part of the country, are in the language of the *Tamuls* called *Tirsi*; by the Mussulmans they are called *Banjur*. The lands in cultivation are called *Sagwulli*. Lands not watered are called *Kiet*; and those which

Different denomination of land.

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are watered are called *Danwudi.* In this district almost the whole of the latter are cultivated, and belong entirely to the *Brâhmans.* Last year one half of the dry-field was waste; the quantity that will be occupied this year is not yet ascertained. The proportion occupied by rivers, roads, rocks, woods, &c. in the opinion of the *Tahsildar*, does not exceed one tenth part of the whole.

Irrigated land.

In this district there are below *Pogolur* two canals *(Corums)* from the *Cavery*, that water much rice-land, and are full throughout the year. Several canals for watering the ground are also brought from the *Amara-wati*, both by means of dams *(Anacuts)*, and by simple canals, or *Corums.* The supply of water in this river does not always last the whole year; so that, in some seasons, there is only one crop of rice.

Sugar-cane.

In this district a great deal of sugar-cane is raised. It is cultivated nearly in the same manner as at *Bala-pura*, and ripens in ten months. A crop of *Ratoons* is sometimes taken, but it is very poor. Between every two crops of sugar-cane it is customary to take two or three crops of rice. Two thousand holes are formed in every *Canay* of ground, which is equal to 100 *Culies* of 32 *Adies* square. Three cuttings are put in each hole. In a good crop, a *Canay* of land produces of *Jagory* 120 *Tolams* of 27½ *Seers* of 28 *Rupees.* This is at the rate of only 8¼ cwt. from an acre. When cheap, the *Jagory* sells at half a *Rupee* a *Tolam*, or 6*s.* 4½*d.* a hundred-weight. The whole value of the produce of an acre, at this rate, is 2*l.* 16*s.*; but the *Jagory* often sells at double the price here stated. A Mr. Campbell has lately undertaken to make the *Jagory* into sugar, and has received from the Company considerable encouragement. He advances 20 *Rupees* for every *Canay* of land which the farmers plant, and is to receive one half of the *Jagory.* Out of this half he is to pay the rent to the government. The twenty *Rupees* are to be repaid him out of the farmer's half. The farmer's share is therefore one half of the produce, and he receives money in advance to enable him to cultivate the land.

14th *November*.—I went seven and a half *Malabar* hours' journey to *Cutamboor*, a small village without a shop. The river *Amara-wati* is at least 400 yards wide; but its stream is very gentle, and almost always fordable. To-day it was about two feet deep. The channel is entirely of sand, and the banks are very low; so that, for watering the rice-grounds, canals *(Corums)* are easily taken from it. Nov. 14. *Amara-wati.*

Near the river the rice-grounds are extensive, and fully cultivated. Farther on, the soil becomes poor, and has many large projecting rocks; but they do not rise high above the surface. There are few inclosures, and much of the dry-field is waste. The country south from the river *Noyel* is remarkably bare of trees. Face of the country.

15th *November*.—I went seven and a half *Malabar* hours' journey to *Arava-courchy*. The road passes through a pretty country; but the soil is poor, and there are very few inclosures. I saw very little cultivation; but the *Tahsildar* insists that two-thirds of the whole of his district are cultivated, and the remainder pays a small rent for grass. To judge from what I have seen of the country, I should conclude that not more than a quarter of the dry-field is cultivated. Nov. 15.

The articles of any importance that are cultivated here on this kind of ground are about equal quantities of *Sholum (Holcus sorghum)*, and *Cambu (Holcus spicatus)*, with some accompanying legumes; a smaller quantity of *Colu*, or *Horse-gram (Dolichos biflorus)*, and a small quantity of *Shamay (Panicum miliare* E. M.*)*, and nearly the same of cotton called *Nadum*. Dry-field.

The best dry-field lets here at 40 *Sultany Fanams* for the *Vullam* of 64 *Vaums* square; the second at 30; the third at 20; and the fourth at 10. The best grass land at 6 *Fanams*, the worst at 3. These, reduced to English money and measure, are as follow: Rent.

		s.	*d.*
One acre of arable land of the	1st quality lets for	5	10
	2d ditto - - -	4	$4\frac{1}{2}$
	3d ditto - - -	2	11
	4th ditto - - -	1	$5\frac{1}{2}$

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		s.	d.
One acre of the best pasture land lets for	- -	0	$10\frac{1}{2}$
One ditto of the worst ditto	- - - - - - - - -	0	$5\frac{1}{4}$

Produce.

The produce of the best land is as follows:

Of *Sholum*, or *Cambu*, per *Vullam* 4 *Moraus* per acre, bushels		5,63
with the legumes. *Muchu Cotay.*	0 10 *Vullams* - - - - - - -	0,44
with the legumes. *Tata Pyru,*	0 10 - - - - - - - - -	0,44
with the legumes. *Mutu Cotay,*	0 10 - - - - - - - - -	0,44
	5 14	Bushels 6,95
Colu, or *Horse-gram,*	3 - - - - - - - - -	3,51
Shamay - - - - - - -	2 - - - - - - - - - - -	2,81
Cotton - - - - - - -	9 *Tolams* - - - - - - -	lb.$42\frac{1}{2}$

Irrigation.

In this district there are four dams *(Anacuts)* on the *Amara-wati;* and these water the rice grounds of four villages, which are rented entirely by *Bráhmans.* Between *Cutamboor* and *Arava-courchy* are two torrents, that in the dry season contain no water. The most considerable, named *Coduganar,* is not applied, in this district at least, to the purposes of agriculture. The other, named *Nunganji,* supplies two villages with water: one by the intervention of a reservoir, and another by means of a canal. The *Potails,* or renters of these villages, are *Sudras.* None of the rice-ground in this district produces annually two crops.

Measures.

In every village of this district the measures differ; which seems to have been contrived purposely to enable the farmers, and lower officers of revenue, to confuse the accompts, and thus to defraud the government.

Arava-courchy.

Arava-courchy signifies the seat of *Arava,* a person of the *Baydar* cast, who was the only inhabitant of the place, when a *Polygar* came from the north and built a town. This afterwards became subject to *Madura,* and then to *Mysore;* the *Curtur* or sovereign of which built near the town a neat fort, and gave it the name of *Vijaya-mangalam,* which by Mussulmans is called *Bijamangle.* About

the end of *Hyder's* government, an English army, under the command of Colonel Laing, took the fort. His batteries were erected in the town, which was destroyed during the siege, and continued uninhabited until Mr. Hurdis took possession of the district. It now contains about 250 families, and a new market *(Bazar)* of well-built houses is rising up; but the people are very poor. The family of the *Polygar* who founded it has been long extinct. The tradition among the oldest *Brahmans* here does not reach back to the time when this country was subject to the kings of *Vijaya-nagara*; but they have all heard of these princes. The inhabitants of *Arava-courchy* mostly speak the *Tamul* language; but there are among them some *Telingas*, probably introduced by the *Polygar;* for the *Veerpachry Rája* and all the neighbouring *Polygars* are of *Telinga* extraction, and all originally came from the north. *Tamul*, it must be observed, is the proper national appellation of the *Sudras* of all the eastern side of the south end of the peninsula; and the *Prakrit, Bhásham*, or vulgar dialect of the country, is therefore called the language of the *Tamuls*. Both language and people are, by those of *Karnáta*, called *Arabi* and *Tigular*. The *Bráhmans* of the *Tamuls* are called *Drávida*; and the dialect spoken by their families, although considered as a vulgar tongue, has a much greater resemblance to the *Sanskrit*, than the common *Tamul;* from whence it may be reasonably concluded, that these *Bráhmans* have originally come from a country where the *Sanskrit* was more prevalent; and, in fact, they are said to have had their origin at *Kalpi*, a town of *Hindustan* proper, near the river *Jumna*.

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Dialects.

Panchanga.

In this part of the country, as well as above the *Ghats*, no *Bráhman*, except the *Panchanga*, or village astrologer, will condescend to act as *Puróhita* for the low casts. If the *Panchanga*'s son can read, he always succeeds to the office of his father.

Vaidika Bráhmans.

The *Vaidika Bráhmans* now act as renters for the lands which they formerly possessed in *Enam*. Even according to their account, they pay a lower rent than the *Sudras* do.

CHAPTER X.

Nov. 15.
Bharata-khandá, and its division into 56 *Désas*.

I found some of them possessed of a considerable portion of learning. These gave me a list of the fifty-six *Désas*, or counties of *Bharata-khandá*, and an explanation of what was meant by such of the *Désas* as they knew. I here give a copy of it, and annex another list given me by a learned *Bráhman* from *Sri Rangam*, the celebrated temple near *Tritchenopoly*. This man, having been a great traveller, is much better acquainted, than the others, with the local situation of the *Désas*.

List given by the *Bráhmans* of *Arava-courchy*.

1 *Anga.*
2 *Vanga.*
3 *Kalinga.*
4 *Kámbója.*
5 *Kámarúpa, (Assam.)*
6 *Sauvíra.*
7 *Sauvaráshtra.*
8 *Maháráshtra, (Marattahs.)*
9 *Magadha.*
10 *Málava.*
11 *Népála.*
12 *Kérala, (Malabar.)*
13 *Chéra, (Saliem* and *Coimbetore.)*
14 *Chóla, (Tanjore.)*
15 *Pándava, (Madura* and *Tinevelly.)*
16 *Panchála, (Panjáb?)*
17 *Bangála (Bengal.)*
18 *Gauda*, or *Gaura.*
19 *Malayala*, probably it ought to be read *Malayachala.)*
20 *Singhala.*
21 *Dravida*, or *Dravíra, (Arcot, Madras.)*
22 *Karnáta, (Mysore, Sira, Colar.)*
23 *Láta.*
24 *Marata*, (This probably ought to have been *Marahata.)*
25 *Nata.*
26 *Pulinda.*
27 *Andhray, (Nellore*, and the country north from *Madras.)*
28 *Húna*, Europe, *(Huns?)*
29 *Dasárnada.*
30 *Bojay, (Vijaya nagara.)*
31 *Kuru, (Delhi.)*
32 *Gandhára,*
33 *Vidarbha.*
34 *Vidéha.*
35 *Banleka.*
36 *Barbara*
37 *Kékaya.*
38 *Kósala, (Oude.)*
39 *Kanta.*
40 *Kiráta.*

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41 *Gurjara, (Guzerat.)*
42 *Hindu.*
43 *Tienkana.*
44 *Kankana.*
45 *Vankana.*
46 *Matsya.*
47 *Mathura.*
48 *Sálwa.*
49 *Chédi.*
50 *Sindhú, (Irán* or Persia.)
51 *Avanti, (Banares,* or *Kási.)*
52 *Mudday.*
53 *Yavana,* (Mecca).
54 *China,* (China.)
55 *Karushay.*
56 *Trikárta,* (a part of Arabia.)

List of the 56 *Désas,* according to *Náráyana Shastri* of *Sri Rangam.*

1 *Anga.*
2 *Vanga* (country east from the *Brahma-putra* river.)
3 *Kalinda, (Vijaya-nagara.)*
4 *Kalinga, (Muttura Binder-abund.)*
5 *Kambója, (Thibet* or *Bootan.)*
6 *Kásmíra.*
7 *Súra, (Surat.)*
8 *Gurjara, (Guzerat.)*
9 *Barbara.*
10 *Murada.*
11 *Gandhára.*
12 *Sauvíra.*
13 *Sauvaráshtra.*
14 *Maharáshtra, (Marattahs.)*
15 *Mathura,* (a place north from *Oude.)*
16 *Magadha, (Gya, Patna, &c.)*
17 *Andhra (Telingána.)*
18 *Nisháda.*
19 *Sindhu.*
20 *Dasárnada.*
21 *Málava,* (capital *Barodra.)*
22 *Népála.*
23 *Panchála, Delhi, (Panjáb.)*
24 *Bangála,* (from *Boidinat* to the *Brahma-putra.*
25 *Malayáchala,* (a hilly country producing sandal.)
26 *Chóla, (Tanjore.)*
27 *Kérala, (Malabar.)*
28 *Singárá,* (perhaps *Singhala.)*
29 *Gauda, (Lakshmanapuram,)* vulgo *Lucknow.)*
30 *Gotáki.*
31 *Karnátaka, (Mysore, &c.)*
32 *Karahátaka.*
33 *Marahataka.*
34 *Panáta.*
35 *Pandava.*
36 *Pulinda.*
37 *Kanta.*
38 *Trika,* (perhaps *Trikarta?.)*

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39 *Trilavanti.*
40 *Avanti, (Ujina,* or *Ougein)*
41 *Vidéha, (Janucapuram,* vulgo *Janucpour,* north from Bengal.)
42 *Vidarbha, (Dinagepore, Rungpore.)*
43 *Kékaya.*
44 *Kósala, (Oude).*
45 *Kankana.*
46 *Tienkana, (Coorg.)*
47 *Hurnay.*
48 *Matsya, (Benares.)*
49 *Bachya.*
50 *Makala.*
51 *Páká.*
52 *Vahlika, (Vahli-konda-puram,* or *Kishkinda,* south from *Arcot.)*
53 *Yavana,* Mussulmans.
54 *Lavakya, (Dwáraká).*
55 *Drivéda, (Raméswara.)*
56 *Drávida, (Arcot.)*

These lists, as usual with all information received from *Bráhmans,* differ most essentially. It is clear, however, that *Bharata-khanda* contains all the habitable world, as far as was known to the authors of the books esteemed sacred among the *Hindus,* and is by no means applied to signify the country which we call *Hindustan.* Indeed, I have never been able to discover any name that the *Bráhmans* have for the country over which their doctrine has extended. They always describe it by a circumlocution, and say all the country between *Himavat-giri* and *Raméswara.* The *Bráhmans* speak of nine *Khandas* in this *Jambu Dwipa,* or world inhabited by men; but all that is said concerning them, *Bharata-khanda* excepted, seems to be the silly extravagance of a disordered imagination.

Bhágirathi, or Ganges.

Bharata-khanda is surrounded by a sea of salt water, and its most celebrated river is the *Bhágirathi,* called by way of eminence the *Gangá,* or river. It is only that part of the river which lies in a line from *Gangóttara* to *Ságara* that is holy; and that is named the *Gangá,* or *Bhágirathi.* The *Hoogley* river of European geographers, therefore, is considered as the true *Ganges;* and the great branch that runs east to join the *Mégna,* or *Bráhma-putra,* is by the *Hindus*

called *Padma* (vulgo *Pada*) or *Padmawatí*, and is not by them esteemed equally sacred. Although the water of the whole river from *Gangóttara* to *Ságara* is holy, yet there are five *Tírthas*, or places more eminently sacred than the rest; and to these, of course, all pilgrims from a distance resort to perform their ablutions, and to take up the water that is used in their ceremonies. These *Tírthas* are, *Gangóttara*; *Haridwára*, or *Maya*; *Prayága* (called by the Mussulmans *Elahabad*), *Uttara Janagiri*, a little below *Monghir*; and *Ságar*, at the mouth of what we call the *Hoogley* river. *Náráyana Shastri*, who has been at all these places, says, that at *Gangóttara* three small streams fall down from impassable snowy precipices, and unite into a small bason below, which is considered by the *Hindus* as the source of the *Ganges*, over which at that place a man can step. It is situated about twenty days journey north and west from *Haridwára (Hurdwar)*; and the *Bráhman's* road lay on the west side of the river, until he came near *Gangóttara*. He observed no considerable stream joining the *Bhágírathi* from the east, until he came to the *Alikanandra*. *Prayága*, however, is the most celebrated *Tírtha*, or holy place by water; as *Kási* is the most sacred *Kshétra*, or place of worship by land.

CHAPTER X.

Nov. 15.

Mussulman cultivators.

In the district of *Arava-courchy* are some families of Mussulman farmers. They were formerly *Candashara*, or persons holding lands free of rent on condition of serving as private soldiers. After the invasion by Colonel Laing, *Tippoo* abolished this kind of militia; and the persons who composed it continue to occupy the lands, but pay rent like other farmers.

Nov. 16.

Face of the country.

16th *November*.—I went ten *Malabar* hours' journey to *Mulinuru*. The country is better enclosed, and less rocky, than that through which I came yesterday; but it is equally uncultivated. By the way I passed an iron forge, of the same structure with that seen in Major Macleod's district, and, like it, calculated to smelt black sand. At *Arava-courchy* I had been informed, that at *Mulinuru* I should find a market; but on coming up I found, that the whole

CHAPTER X. Nov. 16.

place had been destroyed by an invading army, probably that under Colonel Fullarton, and that it has never since been rebuilt. All that remains is a small temple, which has got an establishment of *Bráhmans*, dancing women, and musicians. The neighbouring country is adorned with many plantations of the *Borassus*. The calcareous *Tufa* abounds at least as much on the south side of the *Noyel* as it does toward the north, and in some places covers the whole surface of the ground in continued masses. West from *Mulinuru* is a field of this kind, where the calcareous masses assume a botryoidal form.

Weather.

For some days the weather has become comparatively pleasant. It is very clear, and, although hot in the day and evening, is then by no means oppressive; while the mornings are delightful.

Nov. 17. Face of the country.

17th *November*.—I went a long stage to *Daraporam*. Near this are two fine canals, that water much rice-land in a good state of cultivation. The soil of the dry-field is poor, and but little of it is cultivated.

Daraporam.

At *Daraporam*, or more properly *Dharma-puram*, is a large mud fort, the commandant of which, according to the report of the natives, agreed to surrender the place to Colonel Fullarton. As he wished, however, to make an appearance of resistance, some pioneers were sent into the ditch to undermine the wall; which they did very coolly, while over their heads the garrison kept up a tremendous fire. When the passage was open, the firing ceased, and our troops walked in quietly, without any injury having been done on either side. Previous to this the town was very large; but it is now only beginning to recover from a state of ruin. Mr. Hurdis having made it the head office *(Cutchery)* of his district, it will soon increase. He has laid out the plan of a new town, in which all the streets will be straight and wide; and in this a good many new houses have been built. The inland situation of the place is, however, a great disadvantage; and in favourable seasons the cultivators cannot find a market for their grain.

Nov. 18—20. Management of Mr. Hurdis.

18th to the 20th *November*.—I remained with Mr. Hurdis, a most intelligent and active young gentleman. He manages the disputes about cast, and those arising between the right and left hand sides, in the same manner as is done by Major Macleod. The nature, indeed, of the whole management of both their districts is nearly the same; and in place of a jealousy between them, as belonging to two different services, they live in the greatest cordiality, and the only struggle between them is an honourable emulation in the performance of their duty.

Speedy justice.

Both gentlemen make it a rule, that their *Umlahs*, or native officers, should not leave the court, until every cause that comes before it is decided.

Rents.

Mr. Hurdis thinks that the present rents are greatly too high; and, no doubt, the peasantry here, as well as in almost every part of India, are miserably poor. I am inclined to think, however, that other causes contribute more to this than the greatness of the rents. Mr. Hurdis says, that all the land which is not cultivated is by no means unlet *(Tirsi)*; but owing to the want of rain, and of stock, the farmers are not able to cultivate the whole of what they rent. This, in my opinion, shows, that the fields are by no means over-assessed; and that the farmers, if they would not grasp at more than they have stock to manage, might be in a much more comfortable situation. One great cause indeed of the poverty of the farmers, and consequent poverty of crops, in many parts of India, is the custom of forcing land upon people who have no means of cultivating it. Thus all the lands are apparently occupied; but it is in a manner that is worse than if one half of them were entirely waste. I believe every intelligent farmer in England will say, that one acre fully improved will give more profit than two that are half cultivated.

Polygars.

The *Polygar* government Mr. Hurdis considers as highly oppressive to the peasantry, who are always squeezed by irregular means, although nominally they pay a low rent. The *Polygars*, he says,

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were originally men who had the management of certain tracts of land, with all manner of jurisdiction over the inhabitants. Each was to keep up a certain number of armed men ready for the defence of the country; and they were to account to the king for the whole revenue, deducting from the proceeds a certain sum for their own maintenance and that of their soldiers. Mr. Hurdis considers the headmen and accomptants of villages as having an hereditary right to their offices.

Money.

The *Vir'-Ráya Fanam* is here the most common currency among the people, who reduce all other coins to its standard. In the following table is given the number of *Vir'-Ráya Fanams* for which each coin passes, with the value of these at the Tower mint price.

Gold Coins.

	V.R.F.	*s.*	*d.*
Sultany, Bahadury, and *Ikeri Varahun, Huns,* or *Pagodas* - - - - - -	$16\frac{1}{4}+\frac{1}{32}=$	8	1
Star-Pagoda - - -	$14\frac{1}{4}+\frac{1}{64}=$	7	4
Porto-Novo, or *Feringy* ditto -	$12\frac{1}{2}=$	6	$2\frac{1}{2}$
Sultany Fanam - - - -	$1\frac{32}{100}=$	0	$7\frac{1}{2}$

Silver Coins.

Pondichery, or *Sultany Rupee* - -	$4\frac{1}{4}+\frac{1}{16}+\frac{1}{64}=$	2	$2\frac{1}{2}$
Company's *Madras Rupee* - -	$4\frac{1}{16}+\frac{1}{32}=$	2	1

These are calculated to the nearest farthing: all sums of money in Mr. Hurdis's district I value at this rate of exchange; using, however, the exact fraction, in place of the foregoing approximation.

Weights.

The Weights in use here are,

24 *Star Pagodas* = 1 *Polam* = $0,\frac{1783}{10000}$ lb.
100 *Polams* = 1 *Tolam* = $17,\frac{83}{100}$ lb.

Dry-measure.

The measure of grain used by the farmers, and that by which it is sold in the market, are different.

The measure used by the farmers for dry-grains is thus formed: CHAPTER X. Nov. 18—20.

72 Company's *Rupees* weight of grain fill a *Puddy*.

4 *Puddies* = 1 *Bulla* or *Vullam* = cubical inches		$246,\frac{1}{10}$
16 *Bullas* = 1 *Morau, Siliga,* or *Candy*	-	3958,8
6 *Moraus* = 1 *Podi*	- - - -	23697,7

Also for Rice.

40 *Bullas* = 1 *Siliga* or *Candy*	- -	inches 9874,2
30 *Siligas* = 1 *Mau*	- - - -	29622,1

The Market (Bazar) Measures are,

For Rice.

84 *Sultany Rupees* weight of grain fill a *Puddy*.

3 *Puddies* = 1 *Bulla*, containing cubical inches	-	216.
40 *Bullas* = 1 *Siliga* or *Candy*	- - -	8640.
30 *Siligas* = 1 *Mau*	- - - -	259200.

Also for Dry-grains.

16 *Bullas* = 1 *Morau, Siliga,* or *Candy*	- -	3456.

The Measure for Rice-ground. Rice-ground. Land measure.

24 feet square = 1 *Culy*.

220 *Culies* = 1 *Mau*, which therefore contains $2,\frac{[illegible]}{100000}$ acres.

Rent. The rice lands in this neighbourhood are let to persons of all casts. That of the first quality pays 160 *Fanams* a year for the *Mau;* the second quality pays 140 *Sultany Fanams;* the third, 136 *Fanams;* and the fourth 118 *Fanams.* These, reduced to English money and measure, give 1*l.* 15*s.* 9½*d.*; 1*l.* 9*s.* 10½*d.*; 1*l.* 9*s.*; and 1*l.* 5*s.* 2*d.* an acre. If the rice land be cultivated for *Betel-leaf* (*Piper Betle*), it pays 360 *Fanams*, or at the rate of 3*l.* 16*s.* 9*d.* an acre. Land cultivated with sugar-cane pays no higher rent than that cultivated with rice; yet very little sugar is made here, while

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much is raised in other districts, where it is higher assessed. The accompanying Table, explaining the cultivation of *wet-grains*, has been compiled from the reports of the farmers and merchants assembled for the purpose. One crop only of the three first kinds of rice can be taken in the year. If the *Caru Curivay* be sown, a crop of *Kevir (Cynosurus corocanus)* follows. This is much used, the produce of the two crops, on the whole, being of greater value. It is evident, that the produce here is much under-rated; as the whole value of the crops, after deducting the seed, is little more than the rent paid to government. It must be observed, that the land here is much lower rented than at *Nala Ráyana Pallyam;* yet the farmers here do not acknowledge a greater produce than what will pay their low rent, while those of *Nala Ráyana Pallyam* acknowledge a produce, that, after paying the heavy tax imposed on them, leaves a considerable gain. Could entire reliance be placed on the accuracy of these statements, this would show in a very decisive manner the advantages of high rents; but it must be evident, that the data upon which a traveller can found his calculations are liable to innumerable objections; nor do I think, that less than a residence of ten years, with actual experiments on every crop, could enable a person to speak decidedly on the rate of productiveness which the land of any district possesses.

Statement of the seed, produce, and value of the grains cultivated on *Nunjy* land at *Darapuram*.

Kinds.	Crop for which each is fitted.	Months each requires to ripen.	Quality.	Average value of Bazar *Siliga*.	Average value of farm *Siliga*.	Average Value of Bushel.	Seer per *Mau* land.	Seed per acre.	Produce. Of a *Mau* land. *Siligas.*	Of a *Mau* land. Value, deducting seed.	Of an Acre. Bushels.	Of an Acre. Value, deducting seed.
				V.R.F	*V.R.F.*	*s. d.*	*Bullas*	Bush.		*V.R.F.*		*£. s. d.*
Sambau Rice - -	*Nadavu*, or transplanted	6	Small	8½	9,714	0 11½	40	1,579	30	281¼	47,35	2 8 1
Alaky Manawal do.	ditto	8	Coarse	7	8	0 8	40	1,579	30	232	47,35	1 19 7
Sri Ravabanum do.	ditto	6	Small	8½	9,714	0 11	40	1,579	30	281¼	47,35	2 8 1
Caru Curivay ditto	*CaiVarapu*, or sprouted seed	3	Coarse	7	8	0 8½	80	3,157	25	184	39,46	1 11 4¼
Kevir, or *Ragy*				7¼	8,286	0 9½	3	0,118	15	123½	23½	1 1 1¼

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I also received the following account of the *Kiet*, or dry-field cultivation of *Darapuram*.

Dry-field. Rent.

The best fields let at 60 *Canter'-Ráya Fanams* a *Vullam* of 64 *Vaums* square; the worst lands at 4 *Fanams*. Grass land lets from 10 to 2 *Fanams*. These rents, when reduced to English money and measure, are as follow: arable land from 8*s.* 8¼*d.* to 7*d.* an acre. Grass land from 1*s.* 5¼*d.* to 3½*d.* an acre.

Cotton.

The quantity of cotton raised is considerable, and the kind most commonly cultivated is the *Nadum Pirati*, which requires a red soil. The ground is ploughed four times; and between the 10th of April and the 10th of May the seed is sown. No other grain is mixed with the cotton. For three seasons it produces a crop once a year, in April and May; after which a crop of grain is taken, before cotton is again sown on the same field. In a good year a *Vullam* land produces 5 *Tolams*, or an acre 20$\frac{8}{10}$ lb. It sells at 2¼ *Vir'-Ráya Fanams* a *Tolam*, when containing the seed; or at $\frac{1117}{10000}$

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of a penny a pound; so that the value of the produce of an acre is 1*s.* 5¼*d.*

The *Upum* cotton requires a black soil. It ripens in six months, and a *Vullam* land produces seven *Tolams* of raw cotton.

Articles cultivated on dry-field.

The following Articles are cultivated here on the *Kiet*, or Dry-field.

Kinds.	Seed.		Produce.	
	Per *Vullam* land.	Per Acre.	Per *Vullam* land.	Per Acre.
	Vullams.	*Dec. of Bush.*	*Podis.*	Bushels.
Sholum (Holcus sorghum) - -	8	0,2144	4	10¼
Avaray (Dolichos Lablab) or *Tovary (Cytisus Cajan)* - - -	1½	0,0402	1	2½
Total - -	9½	0,2546	5	12¾
Cambu (Holcus spicatus) - - -	8	0,2144	4	10¼
Avaray or *Tovary* - - - - -	1½	0,0402	1	2½
Total - -	9½	0,2546	5	12¾
Colu (Dolichos biflorus) - - -	8	0,2144	1½	3¾
Shamay (Panicum miliare) - -	10	0,2681	2	5¼

Garden cultivation.

Garden-ground rents here at 80, 60, 50, and 40 *Canter'-Ráya Fanams* a *Vullam*, or at 11*s.* 7*d.*, 8*s.* 8¼*d.*, 7*s.* 3*d.*, and 5*s.* 9½*d.* an acre, according to its quality. When the water is far below the surface, it is raised by the *Capily*, one of which can supply a *Vullam* of land, or 4¼ acres. If the depth of the water be less, it is raised by the *Yatam*, on which four men walk along the balance. A *Vullam* of land requires from one to two *Yatams*, according to the

Machines for irrigation.

distance the water has to be raised; but two *Yatams*, wrought by ten men, are here reckoned cheaper than one *Capily*, wrought by one man and two oxen: the men, however, do other work in the garden. CHAPTER X. Nov. 18—20.

Tobacco.

The principal article cultivated is tobacco; and a crop of grain is always procured in the course of the year from the same ground. The produce of a *Vullam* land of a good quality is 700 bundles of tobacco, weighing on an average 8 *Polams*, and worth 25 *Vir'-Ráya Fanams* a hundred. The crop of *Sholum* is estimated at 6 *Podis*, or at 15½ bushels an acre. The crop of *Cambu* from tobacco land is estimated at the same amount with that of *Sholum*; that of *Ragy* is estimated at 7 *Podis*, or 18 bushels an acre.

Sale of grain.

The farmers who are in easy circumstances keep their grain until they can retail it in the weekly markets. Poor men, in order to discharge their rents, are under the necessity of selling it to dealers, and in general lose 20 per cent.

Servants.

The servants employed here in agriculture are hired in the beginning of the year for twelve months. They may change their service when this term expires, if they be not in their master's debt; but, as he generally advances money for their marriages, and other ceremonies, they are seldom at liberty to go away. They get twenty *Bullas* of rough rice *(Paddy)* a month, with four *Fanams* and one *Siliga* of rough rice yearly; and their master pays their house rent. The whole is about 31 bushels of rough rice, of which one half is husk, with two shillings in money, besides the house rent, which will not exceed one or two shillings a year. These servants generally have one wife, who at seed-time and harvest works for the master for daily wages. A woman's daily wages are four *Puddies* of grain, worth about nine-tenths of a penny. A man gets 6 *Puddies* of grain. A servant with these wages can once or twice a month procure a little animal food. Milk is too expensive. His common diet consists of some boiled grain, with a little salt and

CHAPTER X. Nov. 18—20. capsicum, and perhaps some pickles. His drink is the water in which the grain was boiled. He has very little clothing, and that little is extremely dirty; his house is a hovel, and he is commonly over-run with vermin and cutaneous disorders. The women, although not clean, are fully clothed.

Saline earths. Throughout the *Coimbetore* province there are earths impregnated with muriatic salts, and others with nitrates; both of which have occasionally been made into culinary salt, and nitre.

Saltpetre. In *Tippoo's* reign the makers of saltpetre received advances from government, and prepared the saltpetre from the earth. It was twice boiled, and was delivered to the government at 1 *Vir'-Ráya Fanam* for the *Bulla* containing 4 *Puddies* of 72 *Rupees* weight each, or at about 7*s.* 6¼*d.* a hundred-weight. This earth seems to contain the nitre ready formed, as no potash was added to it by the makers. It is only to be found in the hot season; so that I had no opportunity of examining its contents. I saw the two places in this neighbourhood where it is collected. The soil in both is very sandy and rocky, and the ways passing over them are much frequented by men and cattle. From the 10th of January until the 10th of February the saline earth is scraped from the surface, and is lixiviated, boiled, and crystallized twice.

Nov. 21. 21st *November*.—I went about eleven miles to *Puna-puram.* By the way I saw very little cultivation, but the whole country has formerly been ploughed. From a want of trees and hedges it is very bare, and the soil is rather poor. Immense fields of limestone are every where to be seen; and the *strata* of it at *Puna-puram* are much thicker than I have observed any where else. Many wells having been dug through these *strata,* to the depth of twelve and fifteen feet, give the traveller a good view of them. The calcarious matter seems to have been gradually deposited in horizontal *strata,* or layers. It involves small angular masses of quartz, and other stones, which, I suppose, must have arisen from its having

Calcareous *Tufa.*

flowed over the surface of the original *strata* while it was in a soft state, and collected fragments of these as it rolled along. On the surface of the layers, or in cavities, some of it assumes a botryoidal form, while other parts of these cavities have a smooth undulating or conchoidal surface. The original *strata* are all *aggregate* rocks. *Puna-puram* is a small fort, of which the hereditary chief is a young boy. He was brought to me by his grandmother, and male relations, who are the chief farmers in the place. This season they have had scarcely any rain, to which some of the waste appearance of the country must be attributed; but they say, that they have suffered much from the neighbouring *Polygars*, especially during a commotion that took place about three years ago. Nov. 21.

22d *November*.—I went seven and a half *Malabar* hours' journey to *Mangalam*, an open village belonging to a *Polygar*. The country is not so stony as that through which I passed yesterday; but it is equally uncultivated. *Mangalam* is now reduced to forty houses. It formerly contained one hundred. This diminution is attributed to the oppression of *Tippoo*, and to want of rain; for many of the cultivators have removed to places blessed with a more favourable climate. The *Polygar* is one of the most stupid looking men that I have ever seen, and goes about with very little attendance, or state. Nov. 22. *Polygars.*

Wherever wells have been dug into the lime-stone, water has been found at no great distance from the surface; yet here there is little or no garden cultivation. Much of the well water has a saline taste; and in almost every part of the neighbourhood culinary salt may be procured in the dry season by scraping the surface of the earth, and by lixiviation. Saline soil.

23d *November*.—I went seven *Malabar* hours' journey to *Pujar-petta*, an open village with a few shops. Like almost all those in this neighbourhood, it is surrounded and intersected by many hedges, which serve as a defence against the thieves and robbers Nov. 23. Robbers.

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who come to drive away the cattle; and these miscreants, owing to the vicinity of the *Polygars*, have always been numerous. The village belongs immediately to the government, but is surrounded by the lands of *Polygars*.

Appearance of the country.

This day's road led through a country which is in nearly a similar state with all that I have seen west from *Darapuram;* but the soil in some places is much better, and really very good. The hills of *Coimbetore*, and those that bound the *Ani-malaya* pass on the south, are both visible from *Pujar-petta*.

Nov. 24. *Palachy*.

24th *November*.—I went six *Malabar* hours' journey to *Palachy*. As I approached it, the country became gradually more cultivated, and better inclosed; and its environs look well, being adorned with groves of coco-nut palms; but there are no other trees near it. The town contains 300 poor houses and a small temple, and derives its name from the second wife of a *Vaylalar*, who came to the place when the country was entirely covered with woods, and began to clear it by the *Cotu-Cadu* cultivation. The town is rising fast into importance, having been made the residence of a *Tahsildar*, and being placed in the line of the new road that has been opened to *Pali-ghat*. Near it is a small fort.

Roman coins.

In this vicinity was lately dug up a pot, containing a great many Roman silver coins, of which Mr. Hurdis was so kind as to give me six. They were of two kinds, but all of the same value, each weighing 56 grains. One of the kinds is of *Augustus*. The legend round the head is CAESAR AVCVSTVS DIVI F PATER PATRIAE; that is, *Cæsar Augustus Divi Filius Pater Patriæ*. Above the reverse, representing two persons standing with two bucklers and spears placed between them, the legend is AVCVSTI F COS DESIC PRINC IVVENT; that is, *Augusti Filio Consule designato, principe juventutis*. Under the figures is written CAESARIA, or *Cæsaria*, at some city of which name it has been struck. The other coin is of the same weight, and belongs to *Tiberius*. The legend round the

head is TI CAESAR DIVI AVC F AVCVSTVS; *Tiberius Cæsar Divi Augusti Filius Augustus.* On the reverse, representing a person seated, and holding a spear in one hand and a branch in the other, is the following legend: PONTIF MAXIM, or *Pontifex Maximus.*

Statistical accounts of the revenue officers.

The *Tahsildar* showed me a very regular account of the whole lands in his district, according to the mensuration and valuation made by *Chica Déva Ráya* of *Mysore.* The proportion of land not possibly arable is stated to be very small; and almost the whole face of the country, except in the immediate vicinity of *Palachy,* appears to the traveller to be waste; yet the *Tahsildar's* accompts state the whole arable lands to be occupied.

Tenures of the farmers.

The manner of letting the lands here is very singular. The worst ground, being left for pasture as a common, pays no rent, and must be much more extensive than the *Tahsildar* states; as is clearly proveable by the immense extent of uncultivated land that is every where to be seen. The remainder of the ground belonging to each village, and which is reckoned all that is arable, has an average valuation fixed upon it. In some villages this is 20 *Fanams* a *Bulla* for the whole arable land, good or bad; in others, it is so high as 50 *Fanams* a *Bulla.* If the fields rated as *Bullas* contained no more than the proper measure, the first rent would be 2*s.* 10¾*d.* an acre, the latter 7*s.* 3*d.*; the average value of the whole lands of a village having been fixed, the fields are divided into three qualities, according to the goodness of their soil; and they are then divided among the cultivators by an assembly of these people; in which, in order to prevent partialities, the officers of revenue have no right to interfere. The farmers complain, that the land is forced on them, and that they are compelled to rent more than they have stock to enable them to cultivate. A man who rents 17 *Bullas* of land is able only to plough 9 of them; whereas, if he had full stock, he would plough between 11 and 12, leaving one third part in fallow. The rents, however, have been

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Nov. 24.

lowered; in some villages one-fifth, in others one-third, in order to compensate the loss which the farmer suffers by this manner of renting lands, where there is not a sufficient stock to cultivate the whole. This sort of tenure seems to be a great evil, and, in order to keep down the rent, will occasion constant clamours of poverty among the farmers.

Size of farms and plough-lands.

One plough is reckoned here adequate to cultivate 2 *Bullas* of land, or $8,\frac{\text{[illegible]}}{10000}$ acres. A few farmers possess 10 ploughs, but by far the greater number have only one.

Servants, and price of labour.

There are here two kinds of servants employed by the farmers to cultivate the lands: they are called *Pudial*, and *Pungal*.

Pudials.

The *Pudials* receive yearly 3 *Podis* of grain (29 bushels), worth 48 *Vir'-Ráya Fanams*, with 10 *Fanams* in money, and a house. The 58 *Fanams* are equal to 1*l.* 8*s.* $9\frac{1}{4}$*d.* The wife and children of the *Pudial* are paid for whatever work they perform. He is hired by the year; but, if he contracts a debt with his master, he cannot quit the service till that be discharged.

Pungals.

The *Pungals* go to a rich farmer, and for a share of the crop undertake to cultivate his lands. He advances the cattle, implements, seed, and money or grain, that is necessary for the subsistence of the *Pungals*. He also gives each family a house. He takes no share in the labour, which is all performed by the *Pungals* and their wives and children; but he pays the rent out of his share on the division of the crop, which takes place when that is ripe. If a farmer employs six *Pungals* to cultivate his land, the produce is divided into 15 portions, which are distributed as follow:

6 to the farmer, or *Punnadi*, for rent, seed, &c.
1 to ditto for profit.
2 to ditto for interest of money advanced.
6 to the *Pungals*, or labourers.

15 portions.

Out of their portions the *Pungals* must repay the farmer the money which he has advanced for their subsistence. The farmers prefer employing *Pudials*, when they can be procured; but among the labourers the condition of the *Pungals* is considered as preferable to that of the *Pudials*. Six-fifteenths of the whole produce is indeed a very large allowance for the manual labour bestowed on any land; and, as the farmer can afford to give it, the rents must be moderate.

Measures.

The Grain Measure in use here is as follows:

63 *Rupees* weight of 9 grains, mixed in equal quantities, fill a *Puddy*, which measures 54 cubical inches.

4 *Puddies* = 1 *Bulla*, or *Vullam* = $0,\frac{1004}{10000}$ bushel.
96 *Bullas* = 1 *Podi* - = $9,\frac{644}{1000}$
30 *Bullas* = 1 *Candy*, or *Siliga* = $3,\frac{014}{1000}$

Weights.

The Weights for Cotton are:

8 *Rupees* = 1 *Pull* = $0,\frac{19931}{100000}$ lb.
100 *Pulls* = 1 *Tolam* = $19,\frac{931}{1000}$

Money.

The coins commonly current here are *Vir'-Ráya Fanams*, and *Feringy*, or *Porto-novo Pagodas*, equal in value to ten *Vir'-Ráya Fanams*. The revenue is estimated in *Canter'-Ráya Fanams* at the rate of 100 for 125 *Vir'-Ráya Fanams*.

Land-measure.

The land measure is the same as at *Coimbetore*, the *Bulla* or *Vullam* land being a square of 64 *Vaums* or fathoms each way, and is therefore equal to $4,\frac{284}{1000}$ acres; but, by the actual measurement of a field, I found that it contained $5,\frac{88}{100}$ acres, or that the *Vullams*, by which the accompts are kept, are larger than they ought to be, as 1372 is to 1000. Not knowing, however, how far the other fields may exceed the true measurement, I have in all my calculations considered that as the standard; but I would warn the reader to think

CHAPTER X. it probable, that the size of the computed *Bullas* is at least equal in general to that of the one which I measured.

Nov 24. Dry-grains. In the accompanying TABLE will be seen many particulars relative to the cultivation of the dry-grains, which is here almost the sole occupation of the farmers. The produce is taken on the average of a good year, as allowed by the farmers in presence of the *Tahsildar*.

Table explaining the value and quantity of Seed and Produce of the different Articles cultivated on dry-field at *Palachy*.

Kinds.	Average Value.		Seed.			Produce.		
			For One *Vullam* land.	For One Acre.		Of One *Vullam* land.	Of One Acre.	
				Quantity.	Value.		Quantity.	Value.
	V.R.F.	s. d.			*Pence.*			s. d.
Sholum (Holcus sorghum)	Per *Podi* 16	Per Bushel 0 9¼	*Bullas* 12	Bushels 0,2814	2¼	*Podis* - 8	Bushels 18	14 10
Shamay (Panicum miliare E. M.)	ditto - 17½	ditto - 0 10¼	ditto 32	ditto 0,7504	$8\frac{1}{10}$	ditto - 8	ditto - 18	16 2¼
Bajera, or *Cambu (Holcus spicatus)*	ditto - 16	ditto - 0 9¼	ditto 15	ditto 0,3517	3½	ditto - 10	ditto - 22½	18 6½
Tovary (Cytisus Cajan)	ditto - 24	ditto - 1 2¼	ditto 2	ditto 0,0469	$\frac{7}{10}$	ditto - 1	ditto - 2½	2 9¾
Muchu Cotay (Dolichos Lablab)	ditto - 16	ditto - 0 9½	ditto ½	ditto 0,0117	$\frac{11}{100}$	ditto - ¼	ditto - $\frac{56}{100}$	0 5½
Mutu Cotay (Ricinus palma Christi)	ditto - 24	ditto - 1 2½	ditto ½	ditto 0,0117	$\frac{17}{100}$	ditto - $\frac{5}{16}$	ditto - ½	0 11
Tata Pyra (Dolichos catsjang)	ditto - 16	ditto - 0 9½	ditto ½	ditto 0,0117	$\frac{11}{100}$	ditto - $\frac{3}{16}$	ditto - $\frac{45}{100}$	0 4½
Colu (Dolichos biflorus)	ditto - 7	ditto - 0 4¼	ditto 12	ditto 0,2814	1¼	ditto - 7	ditto - 15¼	5 8
Wulindu (Phaseolus minimoo Roxb:)	ditto - 24	ditto - 1 2¼	ditto 12	ditto 0,2814	4¼	ditto - 4	ditto - 9	11 1½
Pacha Pyra (Phaseolus mungo)	ditto - 32	ditto - 1 7½	ditto 15	ditto 0,3517	7	ditto - 4	ditto - 9	14 10
Ellu (Sesamum)	ditto - 32	ditto - 1 7½	ditto 3	ditto 0,0703	$1\frac{4}{10}$	ditto - 5	ditto - 11¼	18 6
Carlay (Cicer arietinum)	ditto - $38\frac{4}{10}$	ditto - 1 11¼	ditto 20	ditto 0,469	$18\frac{18}{100}$	ditto - 3½	ditto - 7½	14 5¼
Cotton *Upum*	Per *Tolam* 2	Per lb. - 0 $0\frac{6}{10}$	ditto 2	lbs. - 9,332	- -	*Tolams* 20	lbs. - 93⅓	4 7½
Ditto *Nadum*	ditto - 2	ditto - 0 $0\frac{6}{10}$	ditto 2	ditto 9,332	- -	ditto - 20	ditto - 93⅓	4 7½

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Rent.

Except 240 *Bullas*, or 1029 acres, given in *Enám*, the whole arable lands in the subdivision immediately depending on *Palachy* are rented, and pay at the rate of 40 *Fanams* a *Vullam*, or 5*s.* 9½*d.* an acre. It formerly let for 50 *Fanams* a *Vullam*; but the rents have been lowered one-fifth part, on account of the farmers' poverty. Almost the whole is fit for the cultivation of *Cambu* and *Sholum*, which renders it so valuable. Twenty-six *Bullas* only are cultivated with the machine called *Capily*, and that in a very slovenly manner. This pays no additional rent; a strong proof of the advantage of rent as a stimulus to industry; for in most places of this province, where a great additional rent is demanded, this kind of cultivation is carried on with great spirit and care.

Rotation of crops, and produce.

The following statements will show the common manner of cropping the ground, which is done here with more judgment than is usual in India.

		Value per acre.		
I. First year *Cambu*, with accompanying grains -		£.1	3	0
Second year 1st crop *Sholum* -	14*s.* 10*d.*			
2d crop *Colu* - -	5*s.* 8*d.*			
		1	0	6
Third year grass manured by folding cattle on it		0	1	6
Total produce of three years -		2	5	0
Deduct Rent - - - -	17*s.* 4½*d.*			
Seed - - - -	0*s.* 7½*d.*			
		0	18	0
Remainder for stock and labour -		£1	7	0
II. First year *Cambu*, with its accompanying grains		£1	3	0
Second year 1st crop *Shamay* -	16*s.* 4¾*d.*			
2d crop *Colu* . -	5*s.* 8*d.*			
		1	2	0¾
Third year grass - - - -		0	1	6
Total produce of three years -		2	6	6¾
Deduct Rent - - -	17*s.* 4½*d.*			
Seed - - -	1*s.* 0¾*d.*			
		0	18	1½
Remainder for stock and labour -		£1	8	1½

In place of *Shamay*, may be sown *Wulindu*, or *Pacha-Pyra*, or *Ellu*. CHAPTER X. Nov. 24.

III. First year *Cambu*, with the accompanying grains		£1	3	0
Second ditto *Sholum* and *Nadum* cotton -		0	19	5½
Third ditto cotton remains giving ¼ of a crop -		0	3	5½
Fourth ditto grass - - - -		0	1	6
Total produce of four years -		2	7	5
Deduct Rent - - - -	19*s.* 2*d.*			
Seed - - - -	0*s.* 6½*d.*			
		0	19	8½
Remainder for stock and labour -		£1	7	8½

Some farmers in the third year sow *Sholum* between the drills of cotton. The crop is very poor.

The manner of cultivating these crops is as follows: the field, while in grass, is manured by folding on it as many cattle as can be procured. Then between the 26th of May and the 27th of July it is ploughed five times. During this season there are slight showers of rain; but in a few days afterwards the heavy rains generally commence. When this happens, sow the *Cambu* broad-cast, and cover it with the plough. On the second or third day furrows are drawn through the field, at the distance from each other of six cubits. Into these a man, who follows the plough, drops the seeds of *Tovary*, *Muchu-cotay*, *Mutu-cotay*, and of *Tata-Pyra* (see the annexed Table), while another plough comes behind, and covers them with a second furrow. These accompanying seeds are never intermixed; one being sown in one part of the field, and another in another part: but in every field a proportion of each is sown. The *Tata-Pyra* is sometimes mixed with the *Cambu* seed, and sown broad-cast. At the end of one month, the young *Cambu* is about 4 or 5 inches high, and the field is then ploughed. In five months it ripens, and two months afterwards the accompanying grains come to maturity. The ears of the *Cambu*, when ripe, are cut off, and Cultivation.

CHAPTER X. Nov. 24. immediately trodden out. The grain, after being separated from the spikes, is dried in the sun two or three days, and put up in store-houses, so as to be secured from moisture and the circulation of air. After having been kept one year, its value is much diminished, and at the end of two years it becomes totally useless.

The *Cambu* straw is only used for thatch, and is allowed to stand on the field until between the 12th of March and the 10th of April, when it is pulled up by the roots. These being large, the ground is loosened by the operation, and, without having been ploughed, is immediately afterwards sown with *Sholum*, or *Wulindu*, or *Pacha-pyra*, or *Ellu* (see the Table). After these seeds have been sown broad-cast, the field is once ploughed. If *Shamay* is to be sown, the field is ploughed once, the seed is sown between the 12th of May and the 11th of June, and then covered by the plough. One month after having been sown, the *Sholum* field must be again ploughed; the others ripen without any trouble. *Sholum* straw is here reckoned the best fodder. These crops ripen between the 14th of September and the 14th of October; and immediately after they are reaped the field is ploughed, and sown with *Colu*, or *Horse-gram*, the seed of which is covered by a second ploughing. At the end of a month weeds ought to be removed by the hand. In five months more it is ripe.

Cotton. When cotton is cultivated with *Sholum*, the seed of the latter is first sown, and then that of the cotton is scattered over the field. Both are then covered by the plough, and at the end of the first month the field is again ploughed. At the end of the second month the weeds are removed by a small hoe. After the *Sholum* has been reaped, the field is ploughed three times between the cotton plants, which grow quite irregularly three or four cubits from each other. Between the 10th of February and the 10th of April the cotton produces a full crop. Next year, according to the native reckoning, between the 15th of October and the 12th of December, the field is ploughed again three times, and at the usual season gives a crop of

three fourths of what it produced in the first year. The plants are immediately pulled up, and the field is allowed a year's fallow.

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Soil.

The soil here is partly a red, and partly a dark coloured sandy loam; but in some neighbouring villages there is a rich black soil, which every year produces a crop of *Upum* cotton, mixed with the *Cicer arietinum*, or with two umbelliferous plants, called *Danya* and and *Cuderi Womum.*

Cuderi Womum.

The *Cuderi Womum*, or Horse-*womum*, is used as a carminative for horses; and, such being considered by the natives of this country as necessary for these animals, a mixture of it with pepper, onions, and the like, is once a week given to every horse.

Pasture.

I have already mentioned, that besides the bad stony land, which is common, the farmers here keep in fallow for pasture one third of their whole land. They pay full rent for the latter, but nothing for the use of the commons. For pasture, they never are necessitated to send their cattle to the hills. The sickness that prevailed last year among the cattle over a great part of the country was not severely felt at *Palachy;* but the year before it had raged. The cattle of the cow kind in this neighbourhood are of the same breed with those above the *Ghats*, but are rather inferior in size.

Polygars and *Hindu* militia.

The *Ani-malaya Polygars* are twelve in number. My information is taken from one of them, called the *Gopina Gauda.* He says, that six generations ago they were sent into the country by *Trimula Náyaka*, the *Rájá* of *Madura.* Several of them are of *Telinga* descent, but not any are of the *Madura* family. Each of them paid an annual tribute, and, according to the extent of his district, was bound to keep up a certain number of *Candasharas*, or foot soldiers. Whenever called upon, the *Polygars* were bound to serve in the field with all these infantry; but then they got *Batta*, or subsistence money, from the *Rájá.* Each *Candashara* had a small farm, which he or his family cultivated for his support in peace, and for his clothing. The head *Candashara* of every village had a large farm, and acted under the *Polygar* as captain; but out of the

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profit of his farm he was bound to provide arms for his company. Some of the villages in each district were thus divided among the *Candasharas;* while others were let for a rent, out of which the *Polygar* maintained his family, and paid his tribute. Within his own district he possessed the power of life and death, with every kind of jurisdiction, civil and military. Of the twelve *Polygars* of *Ani-malaya*, five are of the *Vayclıar* cast, a *Telinga* tribe; four are *Vaylalar*, a *Tamul* cast; one is a *Golar Totier*, also of *Telinga* extraction; one is a *Poloa*, which is a cast of *Malayalam;* and the twelfth is of the *Vir'-pachry* family, the head of which is now in a kind of rebellion. The *Gopina Gauda's* district contained 60 villages, maintained 1000 *Candasharas*, and paid a tribute of 40,000 *Vir'-Ráyá Fanams*, or 951*l.* 7*s.* $2\frac{1}{4}$*d.* Things continued in this state until the government of *Hyder*, who entirely did away the military tenure, but left each *Polygar* some lands in *Enám*, or free of rent, in place of what it might be supposed they before enjoyed for the support of their families. The *Enám* left to the *Gopina Gauda* was six villages, or one-tenth of his district. In this *Enám* he retained the full jurisdiction that he formerly possessed over his district; for, in eastern governments, the life and property of the subject are frequently intrusted to the discretion of the most petty officers, or land-holders. On *Tippoo's* accession, the *Asoph* or lieutenant of *Coimbetore*, *Khadir Ali Khan*, forced the *Polygars* to pay tribute for the lands which *Hyder* had allowed them to retain, and they were entirely disarmed; but they were allowed to retain over their vassals both civil and criminal jurisdiction. Ten years ago *Tippoo* endeavoured to seize them, in order, by circumcision, to make them Mussulmans; but they made their escape into the country of the *Cochin Rájá*, and continued there until the fall of *Seringapatam*. The lands left to them by *Hyder* as *Enáms* have now been restored for a tribute, amounting to three-fourths of what was exacted by *Tippoo* in the beginning of his reign; and their jurisdiction is similar to that of the *Tahsildars*, except that the government does not

interfere with the manner in which they let their lands. In fact, they are now almost on the same footing with the *Zemindars* of Bengal, only they possess a small authority in matters of police, and a limited civil jurisdiction, and their rents are more moderate. *Gopina Gauda* alleges, that he pays three-fourths of his collections; Mr. Hurdis estimates his profits at 40 per cent. Formerly, during the confusion which subsisted in the open country, the districts of these chiefs, being inaccessible without great trouble, were an asylum for those in distress; but since the Company's government has given security to all well-disposed persons, most of the people who had retired thither have returned to their former places of residence; on which account the estates of the *Polygars* are now thinly inhabited. The *Polygars* collect their rents without the assistance of armed men. *Candasharas* are allowed to the *Tahsildars*; but they serve them rather in their capacity of officers of police, than in collecting the revenue.

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Vaylalar, a tribe of *Tamuls*.

Throughout the *Coimbetore* province the *Vaylalar* are a numerous tribe of the *Tamul* race, and are esteemed to be of pure *Súdra* cast. They are of several different kinds; such as *Caracata, Palay, Chóla, Codical, Cotay, Pandáva*, and *Shayndalay Vaylalars*: of this last kind are those who give me information. All *Vaylalars* can eat together; but these different kinds do not intermarry, nor can a man marry a woman of the same family with himself in the male line. The *Vaylalar* are farmers, day-labourers, and servants who cultivate the earth; many of them can keep accompts, and read books written in their native language. At *Canghium* resides *Canghium Manadear*, hereditary chief of all the *Shayndalay Vaylalars*. Formerly this person settled all disputes in the cast; but Mr. Hurdis, having found that the hereditary chiefs excommunicated unjustly the people of their clans, ordered that all cast business should be settled in public court by the *Tahsildar*, with the advice of a council of persons skilled in the rules and customs of the cast in question. The people seem to be satisfied with this change. The *Vaylalars* are not permitted to drink intoxicating liquors; but such of them as have not

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received *Upadésa* may eat animal food. If their first wife has children, they cannot marry another; nor do the men ever keep concubines in their houses. The women continue to be marriageable after the age of puberty; but widows are not allowed to take a second husband, nor to live with men as concubines. For adultery, if the fault has been committed with a person of the cast, a woman is seldom divorced, unless her shame has become very public. The widow ought to burn herself with her husband's corpse, and this is still sometimes, though very rarely, practised. The tombs of such women as have committed this action are considered as places of worship, and their memory is venerated as that of saints. They are all worshippers of *Siva;* but the proper *penates,* or family gods, are various *Saktis,* or female destructive spirits; such as *Káli, Bhadra-Káli,* and the like. The *Vaylalar* offer sacrifices at the temples of these idols, and, if they have not received *Upadésa,* eat the flesh; but in *Chéra* the *Pújáris* or priests in these temples are all *Pundarums,* who are the *Súdras* dedicated to the service of *Siva's* temples, in the same manner as the *Satánanas* are dedicated to those of *Vishnu.* In sickness, they make vows to ornament the temple of the *Sakti* who is supposed to occasion the disease; and if they recover, they employ the potter, who makes an image of a child or a horse, which is placed in the court of the temple. This kind of offering is extremely common in every part of *Coimbetore,* but I have not seen it in any other part of India. If the proper funeral ceremonies are performed, the *Vaylalar* believe that after their decease they will reside at the feet of *Iswara.* They do not know what becomes of those who after death are not burned with the due rites. They do not require a *Puróhita* to read *Mantrams* at any of the family ceremonies; but, if the *Panchánga* chooses to come and read, he receives something for his trouble. Their *Gurus* are the *Siva Bráhmanas,* or *Bráhmans* who act as *Pújáris* in the temples of *Siva,* and the great gods of his family. These are considered as greatly inferior to the *Smartal,* either *Vaidika,* or *Lokika.* The *Guru*

comes annually to each village, distributes consecrated leaves and holy water, and receives a *Fanam* from each person, with as much grain as they choose to give. Some of them purchase an *Upadésa* from the *Guru*; giving for it, according to their circumstances, from one to ten *Fanams*. Those who have procured this may make a *Lingam* of mud, and perform *Puja* or worship to this rude emblem of the deity, by pouring flowers and water over it while they repeat the *Upadésa*. Such persons must abstain entirely from animal food. Those who have no *Upadésa* must pray without any set form, but are allowed to eat the flesh of sacrifices.

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The *Handy Curubaru* are settled in this country in small numbers, and are generally employed as armed messengers for the police. They are all of *Karnátaca* extraction, and came originally from *Kana-giri* and *Anagundi*.

Handy Curubas.

The *Totear* are a *Telinga* tribe settled here in considerable numbers as cultivators. They are very poor, and remarkably ignorant, which prevented me from obtaining any rational account of their customs.

27th *November*.—I went seven *Malabar* hours' journey to *Animalaya*. Until I came to the river *Alima*, the road passed through a country well cultivated and inclosed. I forded the *Alima* at a town called *Umbrayen-pallyam*, which has formerly been a large place, but is now mostly in ruins, having been destroyed by the *Nairs* in their wars with *Tippoo*. I then proceeded up the side of the *Alima*, having a fine canal with rice-fields to my left, and woods on my right. These occupy the grounds of a village, in which there was formerly much cultivation of dry grains. This also was destroyed by the *Nairs*, who are considered by the people here as fierce and cruel barbarians.

Face of the country.

Ani-malaya, or *Elephant-hill*, is so called from the great number of elephants and hills in its neighbourhood. It is a town which contains about 400 houses, and is situated on the west side of the *Alima*. It is the common thoroughfare between *Malabar* and the

Ani-malaya.

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southern part of the *Arcot* dominions, being placed opposite to the wide passage that is between the southern end of the *Ghats* of *Karnáta*, and the hills that run north from *Cape Comorin*. The *Madura Rájás*, the former lords of the country, built a fort close to the river; which having fallen to ruins, the materials were removed by the *Mysore Rájás*, and a new fort was built at some distance to the westward. Twelve years ago *Tippoo* gave it some repairs, and, to procure materials for the purpose, pulled down five large temples. It is still a very poor work, and is in the district of *Palachy*.

Devastation.

The greater part of the dry-field in the neighbourhood is now overgrown with woods; for eight entire villages to the westward have been completely destroyed by the *Nairs*, and have never been repeopled. There are three dams on the *Alima*, that water much rice-ground, the greater part of which is cultivated. There was formerly a fine tank, supplied with water from a branch of the *Alima* called the *Shinar*; but it fell into decay, and now the workmen are only beginning to put it in order. The whole watered-land in the village of *Ani-malaya* amounts, according to the measurement of *Chica Déva Rájá*, to 750 *Candacas*, which should be about 3100 acres. The dry-field is rated in the books at 400 *Bullas*; but of this three-fourths have become totally waste, and 70 *Bullas* only are actually cultivated. Ten villages in the immediate vicinity are without a single inhabitant. This shows how very inaccurate the accompts are that were shown to me at *Palachy* by the *Tahsildar*. Indeed, very little dependence is to be placed on the statements of native officers of revenue.

Land-measure.

When the measurement of this district was made by the order of *Chica Déva Rája* of *Mysore*, a pole was taken, which was 25 *Adies*, or native feet, in length. Marks have been made on a long stone, which is preserved as a standard. These show the pole to have been $24\frac{1}{4}$ English feet in length. 20 poles in length, by 15 in breadth, are called a *Candaca* of watered-land, which is therefore $4,\frac{114}{1000}$ acres. The *Candaca* of grain is rather more than 3 bushels.

The whole rice-lands pay 72½ *Canter'-Ráya Fanams* a *Candaca* (10*s.* 10½*d.* an acre), whether the soil be good or bad. Every ten years the different farmers draw lots for the fields, each of which, being a long narrow stripe of land, contains all the varieties of soil.

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Rent.

Watered-lands.

The farmers of *Ani-malaya* are mostly *Sudras;* and, owing to the want of hands and stock, can only take one crop in the year from their lands; but there being plenty of water for two crops, one half of the farm is cultivated at one season, and the other at another. Rice and a little *Betel-leaf (Piper Betle)* are the only articles raised upon watered ground. The crop sown between the 13th of July and the 13th of August is cultivated after the dry-seed manner. The sprouted-seed may be sown at any time between the 10th of May and the 10th of December, and is attended with the least trouble. This year a little transplanted rice has been tried, but in the present want of labourers it is considered as requiring too much trouble.

Produce.

In the accompanying Table will be seen the particulars of the cultivation of rice in this district. The estimate is formed on the average of good soils, according to the report of the cultivators, who say, that the smallest produce is about three quarters of that stated in the Table. I however think it rather probable, that what I have given may be considered as the average produce of the whole lands, good and bad. The *Cutari* rice is that most commonly cultivated, as it is less liable than the others to be injured by the herds of wild elephants; for these animals, although they eat rice, do not kill that kind when they tread on it. The *Cartic Sambau* is the best. At *Ani-malaya* no manure, either of leaves or dung, is used.

Table explaining the cultivation of Rice at *Ani-malaya*, in *Coimbetore*.

Kinds.	Seed.		Time it requires to grow.	Value in the Husk,			Produce.					Amount of seed and rent for one acre.	
	For a *Candaca* land.	For an Acre		Per *Candaca*.	Per Bushel.		Of a *Candaca* land.	Of an Acre.					
	Candacas.	Bushels.	Months.	*V.R.F.*	*s.*	*d.*	*Candacas.*	Bushels.	*£.*	*s.*	*d.*	*s.*	*d.*
Punedi Rices, or those sown dry-seed.													
Anacumba Sambau - -	5	3,645	6	6	0	11¼	45	32,8	1	12	5	14	5¼
Perum Sambau - - -	5	3,645	7	5	0	9¼	45	32,8	1	7	0¼	13	10¼
Molagy - - - - -	3	2,187	7	5	0	9¼	45	32,8	1	7	0¼	12	8¼
Cai Vayrapu Rices, or those sown sprouted-seed.													
Perum Sambau - - -	5	3,645	6	5	0	9¼	37½	27,34	1	2	6¼	13	10½
Molagy - - - - -	3	2,187	6	5	0	9¼	37½	27,34	1	2	6¼	12	8¼
Cutari - - - - - - -	5	3,645	4	5	0	9½	40	29,16	1	4	0½	13	10¼
Shurinavalin - - - -	5	3,645	4½	5	0	9¼	42½	30,98	1	5	6¼	13	10½
Cartic Sambau - - -	2¼	2,004	5	6	0	11½	42½	30,98	1	10	7½	12	10¼

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Nov. 27. Dry-field rent.

Although this is in the *Palachy* district, the manner of letting the dry-field at the two places is quite different. The rent here is paid according to the kind of crop. A *Bulla* land, sown with *Cambu* or *Sholum*, pays 25 *Canter'-Ráya Fanams*, or 3*s.* 7½*d.* an acre; if cultivated for *Shamay*, *Colu*, &c. it pays 15 *Fanams*, or 2*s.* 2*d.* an acre; if left fallow for pasture, it pays 5 *Fanams*, or about 8½*d.* an acre.

Hilly country between *Travancore* and *Madura*. Drug-renters.

Here is a person called *Malaya-pudy*, or *hill-village-man*. He rents the exclusive privilege of collecting drugs in the hills south from *Ani-malaya*. These are collected for him by a hill people called *Cadar*, of whom, among the hills two days journey hence, there is a village of 13 houses. The renter has there a small house, to which he occasionally goes to receive the drugs that the *Cadar* have collected, and brings them home on oxen. The men only work for him, and each daily receives in advance four *Puddies* of rice,

worth half a *Vir'-Ráya Fanam*, or about 3*d.* At the end of the year the accompts are settled, every article having a fixed value; and the whole that each person has delivered having been estimated at this rate, he receives the balance, if any be due. In *Tippoo's* government, the renter paid annually 30 *Canter'-Ráyá Pagodas*, or 6*l.* 4*s.* 1½*d.* His rent has this year been raised to 150 *Pagodas*, or 31*l.* 0*s.* 8½*d.*; but then he is allowed to take all the ivory that is found where elephants have died, and which formerly belonged to the government. The articles collected on account of the renter are as follow:

1. *Nonaputta*; the bark of a *Morinda*, which is used as a red dye.
2. *Magali Calangu*; the root of a non-descript *Cynanchum*, which is a favourite pickle with the natives, and smells exactly like bugs.
3. *Inji*; wild ginger.
4. *Munjal*; wild turmeric.
5. *Mutti palu*; the juice of a tree, which by long keeping concretes into a kind of gum; both juice and gum are used by the natives to fumigate their clothes.
6. *Cunghi-lium*; the resin of a non-descript tree, which I have called *Chloroxylon Dupada*, and which is a kind of frankincense.
7. *Shica-gai*; the fruit of the *Mimosa saponaria*, used by the natives to wash the oil out of their hair.
8. Honey and wax. There are here four kinds of honey-bee; 1st. *Malan ten*, a large bee which builds in cavities of rocks, and forms a large nest. One will produce four *Puddies*, or about 3 quarts of honey; and four *Polams*, or $12\frac{2}{15}$ ounces of wax. In procuring this there is much trouble, as the bee stings violently, and builds in places very difficult of access. A *Bamboo*-ladder is let down by means of a rope, from the summit of the rock, to where the honey is. The *Cadar*, taking a fire-brand in his hand, descends by the rope to the ladder, and, having chased away the bees by means of the fire, he

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collects the honey, and is then drawn up. Two men this year have been so violently stung by the bees, that they let go their hold, and were killed by the fall. 2d. *Todugy ten*, a middling sized bee, that builds in the hollow trunks of old trees. Its nest is but about a fourth part of the size of that of the *Malan ten*. The only trouble in collecting this is the enlarging the hole by which the bees enter, so as to get at the combs. Their sting is of no consequence. 3d. *Coshu ten*, a very small bee with a proportionably small quantity of honey, and that of a bad quality. It also builds in hollow trees. 4th. *Cambu ten*, a large bee which builds its nest round the branches of trees. The quantity of honey is small, but it is of the best quality. This bee is easily driven away by the twig of a tree switched round. The common price of wax is 30 *Vir'-Ráya Fanams* for the *Tolam* of 800 *Rupees* weight, or 4*l.* 2*s.* 6*d.* a hundred-weight.

9. *Casturi Munjal;* a kind of wild turmeric, which has a smell somewhat resembling musk. It is mixed with the powder of sandal-wood, with which the *Hindu* women of rank rub their skins.

10. *Levanga putty;* the bark of the *Laurus Cassia.* It is the *Cassia lignea* of India, which is very inferior to that of China.

11. Ivory.

Tribes occupying the southern hills.

The renter trades with villages belonging to *Travancore*, and inhabited by rude tribes called *Visuar* or *Coravan*, *Vucamar*, and *Munnan*. These tribes occupy a hilly tract ten days journey in length, and are scattered through this extent in villages of ten or twelve huts. They use the *Cotu-cadu* cultivation, and collect the same articles with those above mentioned, and have besides cardamoms, which is the only thing that they sell to the renter who lives at *Ani-malaya*. In January they are brought to him fit for the market, and he knows nothing of the manner in which they are

Cardamoms.

prepared, only that they grow on the hills without cultivation. The *Cadar* inform me, that their neighbours in the hills of *Travancore* know the places fit for cardamoms, by observing in the woods places where some of the plants grow. There the hill-people cut all the trees, and give the sun access to the plants, which afterwards shoot up apace. It is three years, however, before they come to perfection. In the third and fourth years they produce abundantly, and then die; when the wood is allowed to grow up, and another part is cleared for a future crop. Between the 10th of January and the 9th of February the fruit is fit for cutting. If the seed be to be preserved in the capsules or husks, the *scapi*, or fruit-stems, before the fruit is quite ripe, are cut off by the root, and kept in a heap for some days; after which the capsules are separated from them by the hand. If the seed only be to be collected, the fruit-stems are allowed to ripen, until they become redish, and until the birds begin to eat the seed. They are then cut, dried under the pressure of a stone for three or four days, and rubbed with the hand to separate the seed. This sells in the market here for 6 *Canter'-Ráya Pagodas* a *Tolam*, or 10*l.* 6*s.* 5½*d.* a hundred-weight. The capsules are rarely brought hither for sale, and are higher priced.

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Wild black-pepper is also found in these hills; but it is of a bad quality. Pepper, wild.

In some of the hills which belong to *Erupa Náyaka*, one of the Company's *Polygars*, a renter has the exclusive privilege of collecting the *Myrobalans* called *Cadugai*, which are the fruit of the *Myrobalanus Arula* Buch: MSS. *Myrobalans.*

At *Ani-malaya* are three persons called tamarind-renters, who pay a trifling rent for the exclusive privilege of collecting the tamarinds, honey, wax, and *Nonaputta*, that are found in the woods, which lie near the town. The people employed by them are called *Malasir*, and are also the wood-cutters of the country. Tamarinds.

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Nerium tinctorium.

There is here plenty of the *Pala-tree,* or *Nerium tinctorium* Roxb: MSS.; but at present nobody makes it into *Palac,* or indigo. Fourteen years ago a man from *Darapuram* came for this purpose, but he was carried away by tigers.

Sandal-wood.

In the gardens round the town a few sandal trees have been planted. It does not come to any perfection; but its leaves serve as an offering to the idols. It does not grow on the hills.

Unhealthy forests.

I could have wished to have passed some days among these hills in botanical investigations; but at this season my attendants would have been exposed to great danger from the unhealthy air, and one half of them would probably have been seized with fevers; as I experienced in the hills of the *Káveri-pura* pass, which are not reckoned so bad as those of *Ani-malaya.*

Wild elephants.

The elephants are increasing here in number, owing to no hunt having been made for some years past. They are very destructive and formidable, and kill many poor people who are travelling in a solitary manner.

Cadar, a rude tribe.

The *Cadar* are a rude tribe inhabiting the hills in this neighbourhood, and speaking a dialect that differs in accent only from the *Tamul.* The men live by collecting drugs for the renter, as I have already mentioned. The women collect wild roots that are edible. They have no means of killing game, but eat any that they find dead. They rear no domestic animals, nor cultivate any thing whatever; but their clothing is as good as that of the neighbouring peasantry. They pay no taxes, and the renter settles all disputes among them. They live in villages called *Malaya-pudy.* They always marry in their own tribe, but cannot take a girl who is of the same family with themselves in the male line. They are allowed a plurality of wives. The lover presents the mother of his mistress with some cloth, and iron tools, and the ceremony consists in a feast given to the relations. The girls continue to be marriageable after the age of puberty, and a widow can without disgrace marry

again. If a woman commit adultery, the tribe assembled deliver her over to her paramour, who pays a fine to the husband, and takes the woman to be his wife. They do not drink spirituous liquors; and they bury the dead. After death, the spirits of good men reside with a god named *Mudivirum*, while those of wicked men go to a bad place. Their temples are small huts, in which rude stones represent *Mudivirum*, and two female deities called *Pay-cotu-Ummum*, and *Kali Ummum*. These deities protect their votaries from tigers, elephants, and disease, but have no priests. Once a year the whole people assemble at the temple, and offer rice and flowers to the images, and sometimes sacrifice a goat. When in the low country, they say that they are of *Vishnu's* side; but they pray to every image that they see. They say, that the men of another tribe living in the hills, and called *Visabun*, or *Corabun*, are their *Gurus*, and are able to read and write. They make presents to their *Guru*, and he gives them consecrated ashes. They have nothing to do with the *Bráhmans*.

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Guard on the frontier of *Malayala*.

28th *November*.—I went seven *Malabar* hours' journey to *Mingara*, a place in the middle of the *Ani-malaya* forest, and on the frontier of the country which formerly belonged to the *Tamuri Rája*, where a guard of 15 armed men is placed by the *Tahsildar* of *Palachy*. The men are hutted on the banks of a mountain torrent; and, although relieved once a fortnight, suffer exceedingly from this unhealthful climate. They are stationed here to prevent the passage of thieves and armed vagabonds, to prevent smuggling, and to intercept unlawful correspondence. The three small huts which they occupy are the only habitations near the place.

Wild elephants.

On strong high trees the guard has constructed two stages, to which the men fly when they are attacked by solitary discontented male elephants, who are not to be driven away by firing at them, unless the ball takes place in some sensible part. Herds of

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elephants come very frequently to drink at the torrent; but are easily alarmed, and run away at the first shot. The guard meets with no annoyance from tigers. For the sake of water, merchants stop to breakfast at this place, and very often pass the night under protection of the guard. The road is a great thoroughfare, and between this and *Ani-malaya* is very good for loaded cattle. Carts might pass all the way, but in some places with difficulty. A very little expense would make the whole good.

Forests.

The woods are stately, and clear of bushes or climbers; nor does the grass reach higher than the knee. The season for examining them would be March and April; at present they are extremely unhealthful. The greater part of the soil, in the woods between this and *Ani-malaya* is tolerably good, and consists of gently swelling lands, with a moderate descent towards *Malabar;* so that the whole might be cultivated. The forests are too remote from water carriage to be valuable on account of producing timber for exportation; and the hills afford a sufficient quantity of timber for the use of the country.

The following are the trees which I observed in passing through this forest; the names are *Tamul;* and the account of their qualities is given on the authority of some wood-cutters that I purposely hired to accompany me.

1. *Buriga.*

A lactescent tree, with leaves three-lobed, petioled, alternate, and without stipules. It has a strong disagreeable smell, like that of a dirty man at hard labour, and its timber is of no use.

2. *Vagy, Mimosa speciosa Jacquini.*

A large tree with black timber.

3. *Vayda talla, Mimosa cinerea.*

4. *Parumba, Mimosa Tuggula* Buch: MSS.

It grows here very large and straight, and its timber is reckoned very good.

5. *Carungali, Mimosa Sundra* Roxb: MSS.
A small tree, producing black wood, that is used by the natives for making the large pestles with which they beat rice to remove the husk.

6. *Puchay, Shaguda Cussum* Buch: MSS.
A small but strong timber tree.

7. *Caracuttay, Zizyphus Caracutta* Buch: MSS.
Used for beams in the huts of the natives.

8. *Vaypa Maram, Melia azadirachta.*

9. *Calocutta Tayca, Premna tomentosa* Willd.
A small tree, and bad timber.

10. *Tayca, Tectona grandis.*
In great abundance, and of the best quality.

11. *Bamboo.*
Here are both the hollow and the solid kinds. When 15 years old, they are said to bear fruit, and then to die. The grain is collected by the rude tribe called *Malasir,* and is occasionally used by all ranks of people. What is reckoned a delicacy among the *Hindus,* is formed by taking equal quantities of honey and of the *Bamboo* seed, putting them in a joint of *Bamboo* coated outwardly with clay, and roasting them over the fire.

12. *Bayla nava, Andersonia Panchmoun* Roxb: MSS.
Large, good timber.

13. *Wodagu.*
Bad timber.

14. *Aty Bauhinia.*
Its bark is used for matches.

15. *Buruga.*
Perhaps an *Aleurites?* The timber is very soft, and used for making the scabbards of swords.

16. *Patchely, Dalbergia paniculata* Roxb:
Reckoned good timber here; but that must be a mistake.

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17. *Iruputtu* or *Carachu*, *Dalbergia* or *Pterocarpus*.
This is the black-wood of *Bombay*, and is called *Viti* by the people of *Malabar*.

18. *Vaynga*, *Pterocarpus bilobus Herbarii Banksiani.*
This differs from the *Pterocarpus santolinus* which above the *Ghats* is sometimes called by the same name. It is a good black-wood.

19. *Aia Maram.*
A good timber, taking a fine polish.

20. *Tayta Maram*, *Strychnos potatorum.*

21. *Malaya Taynga*, *Sterculia foliis digitatis.*
It wants the offensive smell of the *Sterculia fœtida*. Its name signifies the *hill coco-nut*. The follicles are as large as the two hands joined, and contain many seeds about the size of nutmegs, which the natives eat.

22. *Tanacu*, *Sterculia foliis lobatis, capsulis hirtis.*
A middle sized tree, but its wood is very soft.

23. *Paylay*, *Pelon Hort: Mal:*
The timber makes beams for the huts of the natives. The elephant is very fond of its fruit.

24. *Shorghilly*, *Sweitenia febrifuga* Roxb:
A very strong timber, but not large.

25. *Calani*, *Clutia retusa.*
It strongly resembles the *Clutia stipularis*, but its fruit is disposed on long spikes. A small tree; but its timber is strong, and is used for beams and posts in the huts of the natives.

26. *Conay*, *Cassia fistula.*

27. *Valambery*, *Helicteres Isora indica.*
A small tree of no use.

28. *Manjay Cadumbay.*
Used by the natives for stocks to their matchlocks.

29. *Cadumbay Nauclea Daduga* Roxb: MSS.
A large tree and good timber.

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30. *Mava Linga, Crateva Tapia?*
Useless.

31. *Velly Madara, Chuncoa Huliva* Buch: MSS.
A large tree, and good timber.

32. *Tani Cai Maram, Myrobalanus Taria* Buch: MSS.
A large tree, and good timber. The fruit is used in medicine.

33. *Cari Marada, Chuncoa Marada* Buch: MSS.
A large tree, and good timber.

34. *Peru Maram.*
This is the *Doda Maram* of *Karnáta.* Both names signify the great tree; not owing to its size, which is small, but to its great power in stopping alvine fluxes. The fresh bark is beaten with a little butter-milk; the juice is then squeezed out, and taken by the mouth.

35. *Cat Elavu. Bombax.*
Probably the *Ceiba.* A soft wood, used for trunks and sword-scabbards.

36. *Tumbi Chirongia sapida* Roxb: MSS.
The timber is bad; the fruit is esculent.

37. *Punga. Robinia mitis.*
A large tree with useless timber. Lamp oil is expressed from the seeds.

38. *Bilputri Limonia crenulata* Roxb.

39. *Corunga Munji Maram, Rottleria tinctoria* Roxb.
The name signifies *Monkey's-face-tree,* or *Mimusops;* for these animals paint their faces red, by rubbing them with the fruit. The tree is small, and the timber bad. The natives deny all knowledge of the dyeing quality possessed by the red powder that covers the fruit; but at different places in *Mysore,* I was told that the dye was imported from this part of the country.

Iron ore.

In the channel of a mountain torrent I here found the iron ore, of a nature exactly similar to the black sand, but in lumps

CHAPTER X. Nov. 28. about the size of peas. The surrounding *strata* were all *aggregate* stones of a foliated texture, running east and west, and strangely undulated, so as to resemble marbled paper. From these, while they are in a state of decay, the ore is probably derived.

CHAPTER XI.

JOURNEY THROUGH THE SOUTH OF MALABAR.

BEFORE entering *Malabar*, it may be necessary to premise, that this province is subject to the authority of three commissioners; under whom are employed a number of gentlemen, that act in their respective circles as magistrates and collectors. These officers, formerly appointed by the government of *Bombay*, have been lately placed under the Presidency of Fort St. George. With an establishment the expense of which has far exceeded the revenue, a complete protection from invaders, and a most tender regard to avoid the punishment of the innocent, it might have been expected, that this province would have been found in a situation very different from what I am compelled to represent it. No doubt, this has arisen from a lenity in punishing crimes, and an aversion to employ harsh measures to repress the turbulent, originating in a gentleness of disposition, which, however amiable in private life, in a government often produces the utmost distress to the peaceable and industrious subject. CHAPTER XI.

November 29th, 1800.—Having crossed the rivulet immediately after leaving *Mingara*, I entered the province of *Malabar*, in that part of it which formerly belonged to the *Tamura Rája*, as the *Zamorin* is called by the natives. I found that they considered it unlawful to mention the real name of this personage, and always spoke of him by his titles. Nov. 29. *Zamorin.*

The stage that I went to *Colangodu* is of moderate length, and the road crosses the rivulet five times, which from that circumstance is called *Wunan-Ar*. The woods through which we passed to-day are very fine; but the declivities are rather steeper, the roads worse, and the country is more rocky, than between *Ani-malaya* and *Mingara*. About half way to *Colangodu* are the ruins of a small Forest.

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mud fort which was built by the *Tamuri Rájá,* and destroyed by *Tippoo.* The circumjacent country has once been cultivated, as is evident from the remains of corn-fields. *Teak* and other forest trees are now fast springing up among the *Banyan (Ficus bengalensis)* and *Palmira* trees *(Borassus flabelliformis),* by which the houses of the natives have formerly been shaded; and this part of the country will soon be no longer distinguishable from the surrounding forests.

Appearance of the country.

The environs of *Colangodu* are very beautiful. The high mountains on the south pour down cascades of a prodigious height; and the corn fields are intermixed with lofty forests, and plantations of fruit trees. The cultivation, however, is very poor. Most of the dry-field is neglected, and the quantity of rice-land is not great. Here the rain, without any assistance from art, is able to bring one crop of rice to maturity; and in a few places the natives have constructed small reservoirs, which enable them to have a second crop.

Colangodu.

Colangodu has a resemblance to many of the villages in Bengal, although the structure of the houses is quite different; but each is surrounded by a small garden, and at a little distance nothing is to be seen, except a large grove of trees, mostly *Mangoes (Mangifera)* or *Jacks (Artocarpus).* The houses in *Colangodu* are about 1000 in number, and many of them are inhabited by *Tamul* weavers of the *Coicular* cast, who import all their cotton from *Coimbetore.*

Dialect of *Malayala.*

The *Malayala* language is, however, the prevalent one, and differs considerably from that of the *Tamuls,* or what among the Europeans at Madras is called the *Malabar* language. They are, nevertheless, both branches of the same dialect; and my Madras servants and the natives are, to a certain degree, able to understand each other. The accents are very different, and the *Malayala* language, containing a larger share of *Sanskrit,* and of the *Paat,* or poetical dialect, than the language prevailing to the eastward, is generally allowed to be the more perfect. The character used in *Malayala* is nearly the same with that used among the *Tamuls* for writing

poetry; and the poetical language of both people is very nearly the same. CHAPTER XI.

30th *November*.—I went a long stage to *Pali-ghat*. The country through which I passed is the most beautiful that I have ever seen. It resembles the finest parts of Bengal; but its trees are loftier, and its palms more numerous. In many places the rice grounds are interspersed with high swells, that are crowded with houses, while the view to the north is bounded by naked rocky mountains, and that to the south by the lofty forests of the *Travancore* hills. The cultivation of the high grounds is much neglected. Nov. 30. Face of the country.

1st—4th *December*.—I remained with Mr. Warden, the collector of the district, taking an account of the neighbourhood; and from him I not only received every assistance during my stay, but have also been favoured with very satisfactory answers to queries which I proposed to him in writing. Of these I shall avail myself in the following account. Owing to Mr. Warden's kind and hospitable attentions, I found myself perfectly at home while under his roof; which was indeed the case every where in *Malabar*, when I had the good fortune to meet with an English gentleman. Dec. 1—4.

Pali-ghat is a beautiful fort, built by *Hyder* on his conquest of *Malabar*, and situated in the country called *Pali-ghat-shery*, which belonged to the *Shekhury Rája*, one of the petty chiefs of *Malaya*; a word from which, by sundry corruptions, *Malabar* is derived. In the list of the 56 *Desas* of *Bharata-khanda*, given me by the *Bráhmans* of *Arava-courchy*, *Malayala* and *Kérala* are laid down as two distinct *Desas*; but among the *Bráhmans* here they are considered as the same; or at least, that *Malayala* forms a part of *Kérala*. Some consider the words as synonymous, and say, that *Malayala* is the vulgar word, for what is called *Kérala* in the *Sanskrit*; while others allege, that *Kérala* comprehends the whole country below the western *Ghats*, from Cape *Comorin* to *Surat*; while *Malayala* includes that part only which is situated to the south of the

Pali-ghat.

Malayala, or *Malabar*, or *Kérala*.

CHAPTER XI.

Dec. 1—4.

History of *Malayala.*

Chandra-giri river. The *Malayala* of the list given me at *Aravacourchy* is probably a corruption for *Malayáchala.*

According to the accounts of the *Bráhmans* here, no part of *Kérala* is included in the 56 *Désas* of *Bharata-khanda,* and it is of a much later origin. They say, that when *Parasu-ráma,* one of the incarnations of *Vishnu,* had conquered all *Bharata-khanda,* had destroyed all the *Kshatri* cast except the families of the Sun and Moon, and had divided the whole of their dominions among the *Bráhmans,* these favourites of heaven were still dissatisfied, and continued to importune the god for more charity. To free himself from their solicitations, which he could not resist, he created *Kérala,* and retired thither: but he was followed by the *Bráhmans,* who extorted from the god the whole also of this new creation. For many ages the *Bráhmans* retained possession of *Kérala,* and lived under a number of petty chiefs of their own cast, who were called *Potties.* Dissentions, petty wars, assassinations, and every other sort of disorder, became so common under this kind of government, that the *Bráhmans* of *Malayala,* who are called *Namburis,* were forced to apply for a viceroy to govern them under the *Sholun Rájas,* who were at that time the most powerful princes in the south. Each of these viceroys was continued in power for twelve years, and a successor was then appointed by the sovereign. This continued until about a thousand years ago; when *Cheruman Permal,* having acquired great popularity during his viceroyalty, retained his government for twenty years. The *Sholun Rája,* called also *Permal,* enraged at this disloyalty, marched with an army into *Malayala,* and, having forced *Cheruman Permal* to retire into the forests, established his court at *Teravanji Callum,* a place now belonging to the *Cochi Rája.* There he reigned for some time; but at length the *Namburis,* who were extremely attached to *Cheruman Permal,* persuaded some of their own cast to undertake the assassination of the king. The chief of these murderers, having, from

his rank and sacred character, gained admission to *Sholun Permal*, soon ingratiated himself so far into the prince's favour, that he and his companions were admitted into the inner apartments of the palace, while none of the guards nor servants were present. They embraced their opportunity, and, having cut the king's throat, made their escape to *Cheruman Permal;* who, taking advantage of the confusion occasioned by their crime, re-established his authority over all *Malayala.* About this time the Arabs had settled on the coast, where they carried on a great trade, and were called by the natives *Moplaymar.* Some of their priests seem to have converted *Cheruman Permal,* who came to the resolution of retiring to Mecca. Having called a great assembly of the *Namburis* at a place called *Trishu meru vacadu nada swami covil,* he in their presence divided his dominions among his twelve principal chiefs, of whom five were of the *Kshatri* cast, and seven were *Nairs,* who are the *Súdras* of pure descent belonging to *Malayala.* He then retired to the place which we call *Calicut,* where he was to embark. He was met there by a *Nair,* who was a gallant chief; but who, having been absent at the division, had obtained no share of his master's dominions. *Cheruman Permal* therefore gave him his sword, and desired him to keep all he could conquer. From this person's sisters are descended the *Tamuri Rájas,* or *Zamorins,* who, although among the most powerful of the chiefs of *Malabar,* were never acknowledged as their superiors, as in Europe has been commonly supposed. From the time of *Cheruman Permal,* until the time of *Hyder, Malayala* continued to be governed by the descendants of these thirteen chiefs' sisters; among whom, and among the different branches of the same families, there subsisted a constant confusion, and change of property; which was greatly increased by many inferior chiefs assuming sovereign power, although they abstained from the title of *Rája.* Many also of the former *Namburi Putties* continued to enjoy every jurisdiction of a sovereign prince. The country became thus subdivided, in a manner, of which, I believe, there is

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no example; and it was a common saying, that in *Malayala* a man could not make a step, without going out of one chief's dominions into those of another. *Hyder*, taking advantage of these dissensions, subdued the northern part of *Malayala*, or what is now called the province of *Malabar*; while the *Kerit Rám' Rája*, and *Cochi Rája* rendered all the petty chiefs of the southern part obedient to their authority. Both of them are descended from sisters of chiefs appointed by *Cheruman Permal*. The former, whom we call the *Rája* of *Travancore*, has always retained his independence; but the *Cochi Rája* was compelled by *Tippoo* to pay tribute, as he does now to the Company. The violent bigotry and intolerance of *Tippoo* forced the greater part of the *Rájas*, *Nairs* and *Namburis*, either to fly to *Travancore*, or to retire into the forests, and other inaccessible places. On the landing of the British army, a good many of the *Nairs* and some of the *Rájas* joined it; and after the province was ceded to Lord Cornwallis, the *Rájas* were in general placed in authority over the countries that had formerly belonged to their families; but their government having been found such, that it could not be tolerated, or protected, consistent with the principles of humanity that influence Englishmen, they have in general been deprived of all authority, and are allowed one fifth part of their country's revenue to support their dignity, which is more than any sovereign of consequence in Europe can spare for that purpose. Some of them, however, are in actual rebellion; some are refractory, and all are undoubtedly discontented; although before the arrival of the British army they had been very wretchedly supported on the allowances which they received from the *Rája* of *Travancore*. It is alleged, that they are in some degree excusable; as promises, for corrupt purposes, were made to them by persons high in office, although perfectly unauthorised by government.

Pali-ghat-shery, and the *Shekhury Rája*.

Pali-ghat-shery, on the division of *Malayala*, fell to the lot of *Shekhury Rája*, of the *Kshatri* cast; but as this family invited *Hyder* into the country, they are considered by all the people of *Malabar*

as having lost cast, and none of the *Rájas* of *Kshatrya* descent will admit them into their company. To an European the succession in this family appears very extraordinary; but it is similar to that which prevails in the families of all the chiefs of *Malayala*. The males of the *Shekhury* family are called *Achuns*, and never marry. The ladies are called *Naitears*, and live in the houses of their brothers, whose families they manage. They have no husbands; but are not expected to observe celibacy, and may grant their favours to any person of the *Kshatri* cast, who is not an *Achun*. All the male children of these ladies are *Achuns*, all the females are *Naitears*, and all are of equal rank according to seniority; but they are divided into two houses, descended from the two sisters of the first *Shekhury Rájá*. The oldest male of the family is called the *Shekhury*, or first *Rájá;* the second is called *Ellea Rájá*, the third *Cavashiry Rájá*, the fourth *Talan Tamburan Rájá*, and the fifth *Tariputamura Rájá*. On the death of the *Shekhury*, the *Ellea Rájá* succeeds to the highest dignity, each inferior *Rájá* gets a step, and the oldest *Achun* becomes *Tariputamura*. There are at present between one and two hundred *Achuns*, and each of them receives a certain proportion of the fifth of the revenue that has been granted for their support, and which amounts in all to 66,000 *Vir'-Ráya Fanams* a year (1638*l.* 9*s.* 8*d.*): but one sixth part of this has been appropriated for the support of the temples. Formerly the whole was given to the head of the family; but, it having been found that he defrauded his juniors, a division was made for each, according to his rank; and every one receives his own share from the collector. Every branch of the family is possessed of private estates, that are called *Chericul* lands; and several of them have the administration of lands belonging to temples; but in this they are too closely watched by the *Namburis*, to be able to make any profit. The present *Shekhury Rájá* is a poor looking, stupid old man, and his abode and attendance are the most wretched of any thing that I have seen, belonging to a person who claimed sovereignty. His

CHAPTER XI. Dec. 1—4. Temple of *Bhagawat.*

principal house, or *Colgum*, is called *Hatay Toray*, and stands about three miles north from the fort. He is now engaged in rebuilding the temple of *Bhagawat*, at *Callay Colam;* which was pulled down by *Tippoo;* but that bigot did not venture to destroy the image, which is in the form of a human hand. *Bhagawat* is the mother of *Parasu-ráma.* She followed her son to the mountains above *Pali-ghat*, and sat down there on a three peaked hill. At the intercession of the *Bráhmans*, she consented to appear at a certain hour in the tank called *Callay Colam.* On going thither at the appointed time, the *Bráhmans* found the image projecting from the water of the tank, and there it has remained for these eight thousand centuries. Two marks on a rock are shown, as the print of the deity's feet as she descended to the tank. They are of the human size.

Pali-ghat.

Around the fort of *Pali-ghat* are scattered many *Desas* (districts), *Agrarums* (villages), and two *Angadies;* all together containing a considerable population: but there is very little appearance of a town.

Angady.

In *Angady* is a street occupied by shops, or what in many other places of India is called a *Bazar.* Those here are rather mean.

Agrarum, or *Gramam*, or village of *Puttar Bráhmans.*

The *Agrarums*, or *Gramams*, are villages occupied by *Puttar Bráhmans*, as they are here called; that is to say, by *Bráhmans*, who, coming from other countries, are not *Namburis*, and who are looked upon by the people of *Malayala* as inferior in rank; at which they are of course exceedingly offended. The houses of the *Gramas* are built contiguous, in straight streets; and they are the neatest and cleanest villages that I have seen in India. The beauty, cleanness, and elegant dress of the girls of the *Bráhmans* add much to the look of these places. Their greatest defect is, that the houses are thatched with palm leaves, which never can be made to lie close, and which render them very liable to fires, that when they happen generally consume the whole *Gramam.*

Both *Angadies* and *Gramams* have been introduced by foreigners; the *Namburis*, *Nairs*, and all aboriginal natives of *Malayala* living

in detached houses surrounded by gardens, and collectively called *Désas.* The houses of the *Namburis, Nairs,* and other wealthy persons, are much better than those usually met with in the villages of India. They are built of mud, so as generally to occupy two sides of a square area, that is a little raised, and kept clean, smooth, and free from grass. The mud is of an excellent quality, and in general is neatly smoothed, and either whitewashed or painted. These higher ranks of the people of *Malayala* use very little clothing, but they are remarkably clean in their persons. Cutaneous disorders are never observed, except among the slaves, and lowest orders; and the *Nair* women are remarkably careful, by repeated washings with various saponaceous plants, to keep their hair and skins free from every impurity, a thing very seldom sufficiently attended to among the natives of India.

Money.

Money.

Accompts are kept in *Feringy,* or *Porto-novo Pagodas,* or *Varahuns; Pudameni,* commonly called *Vir'-Ráya Fanams;* and *Cash.* I have already mentioned the intrinsic value of the two gold coins. No *Vir'-Ráya Fanams* are current, but those of the last coinage struck at *Calicut.* The Madras *Rupee* at present exchanges for $3\frac{3}{4}$ *Vir'-Ráya Fanams,* $2\frac{1}{2}$ *Cash.* A vast variety of other coins are current in the country, but not in any considerable quantity: *Couries* are not in use. A *Bráhman* has the exclusive privilege of coining copper money, which is every year recoined. He pays a certain sum annually to government, and at the beginning of the year issues out his money at the rate of 22 *Cash* for the *Vir'-Ráya Fanam.* He buys in the old ones at the rate of 40 for the *Fanam.* The value of the *Cash* therefore gradually sinks toward the end of the year, until it falls to be the 40th part of a *Fanam,* below which it never can descend. The Company's *Niruc,* or rate of exchange, is necessarily varied occasionally, and is generally altered according to the representations of the money-changers. The exchange

CHAPTER XI. Dec. 1—4. of the *Pagoda* into *Fanams* is very variable, and alters from $11\frac{1}{4}$ to $11\frac{3}{4}$; so that a profit of from $11\frac{1}{4}$ to $11\frac{3}{4}$ per cent. may be had by bringing *Porto-novo Pagodas* from *Daraporam* to *Pali-ghat*, and carrying back the *Vir'-Ráya Fanams.* The *Batta*, or allowance made to the money-changer, for giving *Fanams* for *Pagodas*, is 2 *Cash* for each *Pagoda.*

Weights.

Weights.

9 *Pondichery Rupees* and 1 *Cash*	=	1 *Polam*	=	1624 gr.
$2\frac{1}{2}$ *Polams*	=	1 *Seer*	=	4060 gr.
5 *Seers*	=	1 *Visay*	=	2,89906 lb.
8 *Visays*	=	1 *Tolam*	=	23,19248 lb.

By this are sold *Betel-nut*, black pepper, turmeric, ginger, sugar, and other *Sweets;* onions, tamarinds, sandal-wood, wax, *Dupada* gum; tin and other metals; cotton and thread.

Grain Measure.

Dry-measure.

The merchants sell by the following standard: 84 *Pondichery Rupees* (each weighing 177 grains) weight of rice fill a *Puddy* measure, which by actual measurement I found to contain $79,\frac{324}{1000}$ cubical inches. 9 *Puddies* are equal to 1 *Poray*, which is therefore about $1,\frac{3225}{10000}$ peck.

The farmers divide their *Poray* into 10 *Edangallies;* and about 100 *Puddies* being equal to 111 or 110 *Edangallies*, the two *Porays* ought to be nearly the same. Government have affixed a stamp to the *Tolam* and *Puddy*, to ascertain their being according to standard. The other denominations of measures are made up in various rude manners, and differ so much from each other, that in all bargains for goods it is customary to specify the person's weights and measures by which they are to be delivered.

By the grain measure are also sold mustard, capsicum, oil, and *Ghee* or boiled butter.

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Land Measure.

Land measure.

No land measure has ever existed at *Pali-ghat*; but the natives form computations of extent by saying, that such or such a space of ground is a *Poray-candum*, or what ought to be sown with a *Poray* of rice-seed. It being a matter of great importance to ascertain the extent of a *Poray-candum*, I used much pains in endeavouring to come at the truth; but I met with such opposition, from the fears of the natives of all ranks, that I could ascertain nothing to my own satisfaction. The field that seemed to me best ascertained as a *Poray* sowing measured 7622 square feet; but Mr. Warden informs me, that, after my departure, he made particular enquiries on this subject; and the result of these, which he considers as not liable to material error, is, that the *Poray* sows a field of 58 feet square. One acre therefore contains about 12 $\frac{94}{100}$ *Porays*.

Time.

Calendar.

The people of *Malayala* reckon by the era of *Parasu-ráma*, and divide it into cycles of one thousand years. This is reckoned the 976th year of the cycle: but as their year consists of 365 days, without any means of intercalation, its commencement must constantly, though slowly, be varying through the seasons. The following is a Table of the current year, with the corresponding days of our calendar.

Tamul Months.		European Months.		*Tamul* Months.		European Months.	
Canni 976 -	1	14	September 1800.	*Canni* 976 -	10	23	September 1800.
	2	15			11	24	
	3	16			12	25	
	4	17			13	26	
	5	18			14	27	
	6	19			15	28	
	7	20			16	29	
	8	21			17	30	
	9	22			18	1	October.

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Tamul Months.		European Months.		Tamul Months.		European Months.	
Canni 976 -	19	2	October 1800.	*Vrichica* 976	7	20	November 1800.
	20	3			8	21	
	21	4			9	22	
	22	5			10	23	
	23	6			11	24	
	24	7			12	25	
	25	8			13	26	
	26	9			14	27	
	27	10			15	28	
	28	11			16	29	
	29	12			17	30	
	30	13			18	1	December.
	31	14			19	2	
Tulam - -	1	15			20	3	
	2	16			21	4	
	3	17			22	5	
	4	18			23	6	
	5	19			24	7	
	6	20			25	8	
	7	21			26	9	
	8	22			27	10	
	9	23			28	11	
	10	24			29	12	
	11	25		*Danu* - -	1	13	
	12	26			2	14	
	13	27			3	15	
	14	28			4	16	
	15	29			5	17	
	16	30			6	18	
	17	31			7	19	
	18	1	November.		8	20	
	19	2			9	21	
	20	3			10	22	
	21	4			11	23	
	22	5			12	24	
	23	6			13	25	
	24	7			14	26	
	25	8			15	27	
	26	9			16	28	
	27	10			17	29	
	28	11			18	30	
	29	12			19	31	
	30	13			20	1	January 1801.
Vrichica - -	1	14			21	2	
	2	15			22	3	
	3	16			23	4	
	4	17			24	5	
	5	18			25	6	
	6	19			26	7	

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Tamul Months.		European Months.		*Tamul Months.*		European Months.	
Danu 976 -	27	8	January 1801.	*Cumbha* 976	17	26	February 1801.
	28	9			18	27	
	29	10			19	28	
	30	11			20	1	March.
Macara -	1	12			21	2	
	2	13			22	3	
	3	14			23	4	
	4	15			24	5	
	5	16			25	6	
	6	17			26	7	
	7	18			27	8	
	8	19			28	9	
	9	20			29	10	
	10	21			30	11	
	11	22		*Mina* - -	1	12	
	12	23			2	13	
	13	24			3	14	
	14	25			4	15	
	15	26			5	16	
	16	27			6	17	
	17	28			7	18	
	18	29			8	19	
	19	30			9	20	
	20	31			10	21	
	21	1	February.		11	22	
	22	2			12	23	
	23	3			13	24	
	24	4			14	25	
	25	5			15	26	
	26	6			16	27	
	27	7			17	28	
	28	8			18	29	
	29	9			19	30	
Cumbha - -	1	10			20	31	
	2	11			21	1	April.
	3	12			22	2	
	4	13			23	3	
	5	14			24	4	
	6	15			25	5	
	7	16			26	6	
	8	17			27	7	
	9	18			28	8	
	10	19			29	9	
	11	20			30	10	
	12	21		*Mayda* - -	1	11	
	13	22			2	12	
	14	23			3	13	
	15	24			4	14	
	16	25			5	15	

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Tamul Months.		European Months.		Tamul Months.		European Months.	
Mayda 976 -	6	16	April 1801.	*Ayduma* 976	24	4	June 1801.
	7	17			25	5	
	8	18			26	6	
	9	19			27	7	
	10	20			28	8	
	11	21			29	9	
	12	22			30	10	
	13	23			31	11	
	14	24		*Maytuna* -	1	12	
	15	25			2	13	
	16	26			3	14	
	17	27			4	15	
	18	28			5	16	
	19	29			6	17	
	20	30			7	18	
	21	1	May.		8	19	
	22	2			9	20	
	23	3			10	21	
	24	4			11	22	
	25	5			12	23	
	26	6			13	24	
	27	7			14	25	
	28	8			15	26	
	29	9			16	27	
	30	10			17	28	
	31	11			18	29	
Ayduma - -	1	12			19	30	
	2	13			20	1	July.
	3	14			21	2	
	4	15			22	3	
	5	16			23	4	
	6	17			24	5	
	7	18			25	6	
	8	19			26	7	
	9	20			27	8	
	10	21			28	9	
	11	22			29	10	
	12	23			30	11	
	13	24			31	12	
	14	25			32	13	
	15	26		*Carcataca* -	1	14	
	16	27			2	15	
	17	28			3	16	
	18	29			4	17	
	19	30			5	18	
	20	31			6	19	
	21	1	June.		7	20	
	22	2			8	21	
	23	3			9	22	

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Tamul Months.		European Months.		*Tamul* Months.		European Months.	
Carcataca 976	10	23	July 1801.	*Singhium* 976	6	19	August 1801.
	11	24			7	20	
	12	25			8	21	
	13	26			9	22	
	14	27			10	23	
	15	28			11	24	
	16	29			12	25	
	17	30			13	26	
	18	31			14	27	
	19	1	August.		15	28	
	20	2			16	29	
	21	3			17	30	
	22	4			18	31	
	23	5			19	1	September.
	24	6			20	2	
	25	7			21	3	
	26	8			22	4	
	27	9			23	5	
	28	10			24	6	
	29	11			25	7	
	30	12			26	8	
	31	13			27	9	
Singhium -	1	14			28	10	
	2	15			29	11	
	3	16			30	12	
	4	17			31	13	
	5	18					

Having assembled the principal merchants, they gave me the following account of their commerce. They are chiefly of the kind called *Tarragamar*, who are a sort of brokers, or rather warehouse-keepers. They have storehouses, in which the merchants coming from the east or west deposit their goods, until they can dispose of them to those coming from the opposite quarter. The principals in general remain to make in person their sales and purchases; but some of them, that are rich, employ the *Tarragamar* of this place to sell their goods. The merchants that frequent this mart are those of *Colicodu (Calicut)*, *Tiruvana-angady*, *Panyani-Wacul (Paniany)*, *Parupa-nada*, *Tanur (Tannore)*, *Manapuram*, *Valatire*, *Manjery*, *Puten-angady*, *Shavacadu (Chowghat)*, and *Cochi (Cochin)* on Commerce.

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the west: and *Coimbetore, Dindigul, Daraporam, Saliem, Sati-mangala, Palani (Pulni), Wudumalay-cotay, Tritchenopoly, Tanjore, Madura, Tinivelly, Madras,* and *Seringapatam* from the east.

The broker is not answerable for fire, or theft; nor is he even bound to pay any loss that may happen from the badness of his storehouses. The commission is ¼ of a *Fanam* on every *Tolam* of weighable goods, whether they be stored seven days or one year, which is at the rate of 7½*d.* a hundred-weight. Cloth-merchants always sell their own goods. On each load, they pay as warehouse rent half a *Fanam.* The brokers say, that during the reign of *Tippoo* they had a more extensive trade than at present. Even after *Malabar* fell into the hands of the English, the trade with *Coimbetore* was not interrupted. These assertions appear to me highly improbable; but I am not able to ascertain the truth; for the reports of the custom-house, which Mr. Warden was so good as to send me, through the commissioners, have not reached my hands.

Manufactures.

The weavers here are very few in number, and make only very coarse cloth: but at *Colangodu* all the kinds are made that are wrought at *Coimbetore.* The quantity, however, is very inadequate to the supply of the country. The weavers are all of foreign extraction, from above the *Ghats,* or from the eastward; and are all either *Dévangas* or *Coicular.* The looms employed in the whole district, according to the returns made to the collector, are 552.

Property of the soil vested in the *Namburis.*

I have already mentioned, that the *Namburis* pretend to have been possessed of all the landed property of *Malayala,* ever since its creation; and in fact it is well known, that before the conquest by *Hyder* they were the actual lords of the whole soil, except some small parts appropriated to the support of religious ceremonies, and called *Déva-stánam;* and other portions called *Chericul,* which were appropriated for supporting the families of the *Rájas.* All the remainder, forming by far the greater part, was the *Jenm,* or property, of the *Namburi Bráhmans;* and this right was, and by them is still considered as unalienable: nor will they allow, that any

other person can with propriety be called a *Jenmcar*, or proprietor of land. As, however, both duty and inclination prevented the *Namburis* from attending to the management of their lands, they took various means of obtaining an income from the *Súdras*, to whom they granted a temporary right of occupancy. CHAPTER XI. Dec. 1—4.

The whole of this district may be divided into two portions; the one of which is well inhabited, and much cultivated; the other is covered with thick uninterrupted forests, among which are scattered a few villages of the rude tribes, who subsist by collecting the productions of these wilds.

I shall endeavour in the first place to describe the state of the cultivated part; and in doing so, I must express my thanks to Mr. Smee, one of the commissioners, who was so good as to give me a very satisfactory report, that he formed when employed in valuing the middle and southern divisions of *Malabar;* and also to Mr. Warden, for the pains which he bestowed in answering the statistical queries that I proposed to the collectors of *Malabar*.

Population.

Mr. Warden states the houses of the inhabited part of his district to be as follow:

Occupied by the families of *Rájás* - -	42
by *Nazaranies* - - -	13
Mussulmans - -	1469
Namburis - - -	137
Puttar Bráhmans - -	3309
Nairs - - - -	4292
Artificers, tradesmen, &c. -	2329
Shanars, or *Tiars* - -	4287
Fishermen - - -	539
People of *Karnata*, or *Chéra* -	5054
Total houses -	21,473

From an enumeration of the houses and persons in the southern district of *Canara*, who live in a state of society similar to that

CHAPTER XI. Dec. 1—4.

here, the number of houses may be multiplied by 4,$\frac{821}{1000}$ to give the number of persons. This will give - - 106,500

Add *Churmar*, or slaves - - -	16,574
Total population -	123,074

This is exclusive of military, camp followers, travellers, vagrants, &c. &c. From an enumeration of the inhabitants in one of the districts of *Malabar*, given by Mr. Baber, the number of persons in each house is 3,$\frac{5744}{10000}$ nearly. This would reduce the number of free persons in Mr. Warden's circle to - - 78,925

Add slaves - - - -	16,574
Total inhabitants -	95,499

but I think the estimate formed on the enumeration by Mr. Ravenshaw more likely to be true.

Extent of the country, and of the various soils of which it is composed.

The extent of inhabited country, as stated by Mr. Warden, is given in the accompanying TABLE. He was at the pains to consult all the land-holders in this district, and to procure from each a computation of the different kinds of ground in the *Désam* to which he belonged. This computation was made by estimating how many *Porays* of rice such an extent would sow. From the extent contained in the Table, however, some deduction must be made in the article of *Ubayum* lands. Mr. Warden, in this article, followed Mr. Smee's calculation of the number of *Porays* of seed sown; without recollecting, that a considerable proportion of this kind of land is sown twice a year. Say that this is the case with one fourth part of it, and we must reduce the *Ubayum* land now cultivated to 581,021 *Porays*, and to 46,862$\frac{1}{2}$ acres; and the general total to 792,941$\frac{1}{2}$ *Porays*, and to 60,540 acres; for it must be observed, that Mr. Warden, after much inquiry, fixes the land sown with a *Poray* of rice at 58 feet square. According to these estimates, we have a country containing 60,540 acres, and these by no means all cultivated, and yet maintaining 123,000 inhabitants.

This is at the rate of 1300 inhabitants to the British square mile, which appears to me impossible; especially considering that there are few or no towns in the country, and few or no manufactures; and still more so, considering that large quantities of grain are exported. That the population is not exaggerated, I have strong reason to think. From Mr. Smee's valuation of the districts under Mr. Warden, it would appear, that the average quantity of rice in the husk annually produced there, after deducting seed, amounts in round numbers to 6,500,000 *Porays*. Now, allowing one *Edangally* daily for every person, which is a reasonable maintenance, the annual consumption of 123,000 persons in round numbers will be 4,500,000 *Porays*, leaving 2,000,000 *Porays*, or almost a third of the whole produce, for exportation. I omit bringing to account the other grains raised in these districts, as they are of no great importance, and are not more than sufficient to make up for the maintenance of strangers, vagrants, and cattle. I suspect, therefore, that Mr. Warden's estimate of the extent of a *Poray* land is inadmissible. Even taking the *Poray* lands to be all of the same size with the one that I measured, the population will amount to 567 souls to the square mile, and that is more than can be reasonably allowed. Mr. Baber's estimate of the numbers of persons being taken would indeed reduce the number to 440 persons in the square mile; but I am more inclined to think that the dimensions of the territory are diminished, than that the number of inhabitants is over-rated. However, as I have no better data to proceed on, I consider the *Poray* sowing of land to be equal to 7622 square feet, and, on that supposition, give a corrected Table.

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Poray-candum.

Table explaining the state of the inhabited part of Mr. Warden's district in *Malabar*, according to his estimate of the *Poray-candum*.

			Porays.	Acres.
A. Lands too rocky, steep, or barren, for cultivation - - -			40,189½	3,103½
B. Lands that are arable, or that might be made so				
I. *Dhanmurry*, or *Paddum-land.*				
a. Now actually cultivated.				
1. *Palealil* *Porays* 32,184, acres 2,485				
2. *Ubayum*, ditto 726,276, ditto 56,092¼				
	Porays.	Acres.		
Total cultivated - -	758,460	58,577½		
b. At present waste, but formerly cultivated -	39,751	3,067½		
c. That never have been cultivated - -	300	23¼		
Total *Dhanmurry* or *Paddum-land* -			798,511	61,668½
II. *Parumba* lands.				
	Porays.	Acres.		
a. At present occupied by houses, gardens, and plantations	32,392	2,501½		
b. At present in rotation for various kinds of grain -	49,659	3,835		
c. Not lately employed nor cultivated - -	15,445	1,192¾		
d. That never has been cultivated - -	2,000	154¾		
Total *Parumba* lands -			99,496	7,683½
Total inhabited lands -			938,196½	72,455½

The preceding Table corrected according to my Estimate of the *Poray-candum.*

			Porays.	Acres.
A. Lands too rocky, steep, or barren, for cultivation - - -			40,189½	7,032½
B. Lands arable, or that might be made so				
I. *Dhanmurry*, or *Paddum* lands.				
a. Now actually cultivated.				
1. *Palealil* *Porays* 32,184, acres 5,631½				
2. *Ubayum* - 581,021 - 101,667				
	Porays.	Acres.		
Total *Paddum* land cultivated -	613,205	107,298½		
b. At present waste, but formerly cultivated -	39,751	6,956		
c. That never have been cultivated - -	300	52½		
Total *Paddum* land - -			653,256	114,307
II. *Parumba* lands.				
	Porays.	Acres.		
a. At present occupied by houses, gardens, and plantations	32,392	5,668		
b. At present in rotation for various kinds of grain -	49,659	8,690		
c. Not lately cultivated - - - -	15,445	2,703		
d. That never have been cultivated - -	2,000	350		
Total *Parumba* land -			99,496	17,411
Total inhabited land -			792,941½	138,750½

The lands capable of cultivation in this province are of two kinds: the one called by the natives *Paddum*, or *Padda* land; the other *Parum*, or *Parumba*.

Paddum land.

The *Paddum* land is by the Mussulmans called *Dhanmurry*, and *Batty* field by the English gentlemen of the Bombay establishment; but there can be little doubt, that this is the origin of the word *Paddy-field* used by the gentlemen of Madras, and which from thence has been carried to Bengal, and extended to the grain usually cultivated in such fields. It comprehends all the lower grounds of the province, which are cultivated almost solely for rice.

Parum land.

The *Parum* land by the Mussulmans is corrupted into *Perm*, or *Purm*, in which they have been generally followed by Europeans. It consists of the higher grounds, generally formed into terraces, and is partly occupied by the houses, gardens, and orchards or plantations; partly reserved for pasture; and partly cultivated with a peculiar kind of rice, and with various pulses and grains.

Plantations.

There being very few plantations in the neighbourhood of *Pali-ghat*, I shall confine my account of the cultivation to the arable lands, and only state the extent of the plantations from the authority of Mr. Smee.

Coco-nut palms (*Cocos nucifera*). -	Total 53,305.	In full bearing 26,027
Betel-nut ditto (*Areca catechu*) - -	101,897	- - 35,556
Jack trees (*Artocarpus integrifolia*) - -	18,089	- - 8,840
Pepper vines (*Piper nigrum*) - -	13,316	- - 4,365
Brab palms (*Borassus flabelliformis*) -	622,801	- - 133,619

Borassus.

The palm, which in *Malabar* is called *Brab* by the English, is in such immense quantity, that the *Jagory* prepared from it commonly sells at 1 *Fanam* a *Tolam*, or about 2*s.* 7½*d.* for the hundred-weight. I am persuaded, that, with proper care, an excellent spirit might be extracted from this; and no place seems more favourable for the experiment than *Pali-ghat*.

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Tenures in *Malayala*. *Jenm Patom*.

I now return to the manner in which the *Namburi* proprietors managed their arable lands; for, as I have before mentioned, almost the whole of *Malayala* was the property of these *Bráhmans*.

Before the invasion of *Hyder*, a few of them cultivated their estates by means of their slaves, called in this country, in the singular, *Churmun*, but collectively *Churmar* or *Churmacul*. These industrious *Bráhmans* were said to receive the *Jenm Patom*, or full produce of their lands.

Vir'-Patom.

A much greater number of the landlords let their lands to farmers called *Cudians*, for what was called *Vir'-Patom*, or neat produce. The allowance made to these farmers was very small. They deducted from the gross produce the quantity of seed sown, and an equal quantity, which was the whole granted them for their stock and trouble; and they gave the remainder to the landlord under the name of *Vir'-Patom*, or neat produce. This was a tenure very unfavourable to agriculture. The farmer had no immediate interest in raising more than two seeds, of which he was always sure: and the only check upon him was the fear of being turned away from his farm, which was a very inadequate preventive against indolence, where the reward for industry was so scanty.

Canum, or mortgage.

By far the greater part of the arable lands, however, had been long mortgaged, or granted on *Canum*. When a man agreed to advance money on a mortgage, the proprietor and he determined upon what was to be considered as the neat produce *(Vir'-Patom)* of the land to be mortgaged. The person who advanced the money, and who was called *Canumcar*, took upon himself the management of the estate, and gave a sum of money, the interest of which, at the usual rate of 10 per cent. per annum, was deducted from the neat produce; and the balance, if any remained, was paid to the proprietor of the estate. Sometimes the balance was fixed in money; at other times the proprietor was allowed, instead of it, a certain portion of the gross produce in kind, such as a fifth and a

tenth. The proprietor always reserved a right of reassuming the estate whenever he pleased, by paying up the sum originally advanced, and no allowance was made for improvements. This tenure also is evidently unfavourable to agriculture; as no prudent man would lay out money on an estate, of which he might be deprived whenever he had rendered it more valuable. The fact is, however, that this right of redemption was rarely exercised by the *Namburis;* and from the existing bonds it is known, that the same family, for many generations, has continued to hold estates in mortgage. This I consider as a clear proof, that this tenure prevented improvement; and that agriculture, as an art, was at least not progressive. Before the conquest of *Hyder*, the mortgagees were mostly *Nairs;* but after this event many *Moplays*, and still more *Puttar Bráhmans*, acquired that kind of property; and now many *Shanars*, and other persons of low cast, have become *Canumcars*.

Negadi, or land-tax.

Under the government of the *Rájás* there was no land-tax; but the conqueror soon found the necessity of imposing one; as the expenses of his military establishment greatly exceeded the usual revenues. The low ground *(Paddum)* was the only part of the arable land on which this tax called *Negadi* was imposed. The reason of this seems to have been, that had the *Parumba*, or high grounds, been taxed, almost the whole property of the *Namburis* would have been annihilated. The *Negadi* of course fell upon them first, and the share which they had reserved in the mortgage bonds being totally inadequate to pay this tax, the interest of the proprietors in the assessed lands entirely ceased, and the balance fell upon the mortgagees *(Canumcars)*, who were very well able to pay it. The small profits arising from the high *(Parum)* lands were left entire to the proprietors *(Jenmcars)*, to prevent them from falling into absolute want; but they were all reduced to great comparative poverty.

Condition of the *Jenmcars*.

The violent outrages of *Tippoo* having forced most of the *Namburis*, in order to avoid circumcision, to fly to *Travancore*, many of

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the families have perished, and the mortgagees on their estates have in general assumed the title of *Jenmcars*, and in fact enjoy all the rights belonging to that class of proprietors. It is pretended, that, when the *Namburis* fled, being in want of money, they sold their estates fully, and took the whole balance of the value of the *(Vir'-Patom)* neat produce.

Patom, or usual rent.

Many of the mortgagees, and other landholders, now let their lands to *(Cudians)* tenants; but they can seldom procure any person who will give the *(Vir'-Patom)* neat produce. The leases in general are for three years, and the annual rent is fixed, and always paid in kind. This is what is commonly called the *Patom*, or produce of an estate. When the landholder is poor, he is under the necessity of allowing the farmer to pay the land-tax, who of course says, that he is obliged to sell his rice at the lowest rate, and therefore charges a large share of the produce as expended for this purpose; but landholders in tolerable circumstances keep their grain until it rises to a medium price, and discharge the land-tax themselves.

Déva-stanum and *Chericul* land.

The *Déva-stanum*, or temple-lands, and those called *Chericul*, which belong to the *Rájás*, were under the management of these chiefs, and were let out exactly like those of the *Namburis*. The temple-lands were exempted by *Hyder* from the assessment: but the *Chericul* lands were considered as private property. *Tippoo* seized on the former, and they are now subject to the tax; but they still yield a profit, and are managed by the *Rájá* for the benefit of the temples.

Profits of the farmers and land-holders.

According to the account of the principal proprietor here, the *Patom*, or rent paid for a *Poray* sowing of land, varies from 5 to 2 *Porays* of grain. That which pays the high rent produces two crops in the year; that which pays the low rent produces only one crop; so that the crops are considered as not varying greatly in value from a difference in soil; and the average rent for one crop may be about 2¼ *Porays* for one *Poray-sowing*. According to

Mr. Smee's estimate, in which I place great confidence, the average produce of rice in this district of *Pali-ghat*, after deducting 10 per cent. for contingencies, is $7\frac{1}{8}$ seeds. This, deducting $4\frac{1}{4}$ for rent and expense of every kind, leaves $2\frac{7}{8}$ for clear gain to the farmer, or rather more than 40 per cent. on the gross produce. The proprietor of the land therefore, were the land-tax to exhaust the whole rent, and were he in consequence reduced to the necessity of cultivating his estate on his own account, would be in a much better condition than farmers are in general in India; but they are by no means reduced to this state, although in general they now cultivate as much of their own lands as they can conveniently superintend. The whole *(Dhanmurry)* low land is assessed here at a tax of $1\frac{1}{2}$ *Fanam* for what is called a *Poray-land;* but it is absurd to suppose, that land paying five seeds, and that paying two, could be equally assessed; these *Porays* are merely imaginary, and the tax imposed by *Hyder* was on the supposition that the land paid five seeds; and where that was not the case, so much land as made up the deficiency was included in the accompts as one *Poray-land.* Mr. Smee values the rice at $2\frac{1}{10}$ *Porays* for a *Fanam;* which indeed is its price when lowest, and the market glutted, after harvest. According to this valuation, the proprietor of the land would pay 84 per cent. of his neat rent as land-tax, which is more than the *Zemindars* of Bengal in general pay; and some necessitous men may be forced to do this; but men of common prudence, unless the revenue be collected at unreasonable seasons, ought to expect a medium price for their grain, and that is two *Porays* for the *Fanam;* so that the land-tax would exhaust 60 per cent. of the neat rent. This is, no doubt, a heavy tax, and must have greatly distressed individuals not accustomed to pay a land-tax of any kind, and must also have annihilated the remaining property of those whose estates were involved in mortgages: still, however, the present occupants of the ground possess a much larger property in it than is usual in India.

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Cudians, or farmers.

Churmar, or slaves.

Some poor men, chiefly of the *Shanar* cast, cultivate with their own hands the lands which they hold as farmers *(Cudians)*; but *Bráhmans* never labour, and the *Nairs* or *Moplays* very rarely.

By far the greater part of the labour in the field is performed by slaves, or *Churmar*. These are the absolute property of their *Dévarus*, or lords, and may be employed in any work that their masters please. They are not attached to the soil, but may be sold, or transferred in any manner that the master thinks fit, only a husband and wife cannot be sold separately; but children may be separated from their parents, and brothers from their sisters. The slaves are of different casts, such as *Parriar*, *Vullam*, *Canacun*, *Erilay*, &c.; and the differences in the customs by which the marriages of these casts are regulated occasion a considerable variation in the right of the master to the children of his slaves, according to the cast to which they belong. The master is considered as bound to give the slave a certain allowance of provisions: a man or woman, while capable of labour, receives two *Edangallies* of rice in the husk weekly, or two-sevenths of the allowance that I consider as reasonable for persons of all ages included. Children, and old persons past labour, get one half only of this pittance; and no allowance whatever is made for infants. This would be totally inadequate to support them; but the slaves on each estate get one-twenty-first part of the gross produce of the rice, in order to encourage them to care and industry. A male slave annually gets seven cubits of cloth, and a woman fourteen cubits. They erect for themselves small temporary huts, that are little better than large baskets. These are placed in the rice fields while the crop is on the ground, and near the stacks while it is thrashing.

Tenures by which slaves are held.

There are three modes of transferring the usufruct of slaves. The first is by *Jenmum*, or sale, where the full value of the slave is given, and the property is entirely transferred to a new master, who is in some measure bound by his interest to attend to the welfare of his slave. A young man with his wife will sell for from 250 to

300 *Fanams*, or from 6*l*. 4*s*. 1½*d*. to 7*l*. 8*s*. 11¼*d*. Two or three young children will add 100 *Fanams*, or 2*l*. 9*s*. 7¼*d*. to the value of the family. Four or five children, two of whom are beginning to work, will make the family worth from 500 to 600 *Fanams*, or from 12*l*. 8*s*. 3*d*. to 14*l*. 17*s*. 11*d*. The second manner of transferring the labour of slaves is by *Canum*, or mortgage. The proprietor receives a loan of money, generally two-thirds of the value of the slaves; he also receives annually a small quantity of rice, to show that his property in the slaves still exists; and he may reassume this property whenever he pleases to repay the money borrowed, for which in the mean while he pays no interest. In case of any of the slaves dying, he is held bound to supply another of equal value. The lender maintains the slaves, and has their labour for the interest of his money, and for their support. The third manner of employing slaves is by letting them for *Patom*, or rent. In this case, for a certain annual sum, the master gives them to another man; and the borrower commands their labour, and provides them with their maintenance. The annual hire is 8 *Fanams* (3*s*. 11¼*d*.) for a man, and half as much for a woman. These two tenures are utterly abominable; for the person who exacts the labour, and furnishes the subsistence of the slave, is directly interested to increase the former and diminish the latter as much as possible. In fact, the slaves are very severely treated; and their diminutive stature and squalid appearance show evidently a want of adequate nourishment. There can be no comparison between their condition and that of the slaves in the West India islands, except that in *Malabar* there are a sufficient number of females, who are allowed to marry any person of the same cast with themselves, and whose labour is always exacted by their husband's master, the master of the girl having no authority over her so long as she lives with another man's slave. This is a custom that ought to be recommended to our West-India planters; and, if adopted, I am persuaded, would soon induce the Negro women to breed, and would give a sufficient

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supply of inhabitants, without having recourse to an annual importation from Africa.

Dec. 1—4. Management of a farm.

Five families of slaves, probably amounting to 24 persons of all ages, are adequate to cultivate 200 *Porays* of rice-land, which according to my estimate is a little more than 35 acres. They require five ploughs and ten oxen, of which two ought to be of large size. Now I know, that in Bengal a plough cultivates about $7\frac{1}{2}$ acres of rice-land, which confirms my opinion of the extent of a *Poray* of land. A farmer with such a stock as that above-mentioned is reckoned a substantial man, and hires a servant to superintend his slaves. All the morning he sits in his house, washes his head, and prays; then eats his dinner quietly at home, and once a day takes a walk round his farm, and gives his orders. The superintendant is a yearly servant, and is not expected to perform any labour with his hands. He gets 16 *Fanams* worth of cloth, and from 24 to 32 *Fanams* a year in cash, with from eight to ten *Porays* of rough rice a month, and one *Puddy* of *Sesamum* oil; so that he is able to maintain a family. This account is given me by the farmers themselves.

Cultivation of rice.

I shall now proceed to give an account of the cultivation of the land called *Paddum*, or *Dhanmurry*, which I took from three *Shanar* farmers, who were intelligent men, but who either actually were, or pretended to be, afraid of giving offence to the landlords. In all their estimates of seed, produce, and rent, they were guided by an average of the computed *Porays*, which I find impossible to reduce to any standard; and indeed for the same extent of ground, the different modes of culture require different quantities of seed.

Quantity of seed required for an acre.

If a *Poray* be sown on 58 feet square, according to Mr. Warden's estimate, an acre would require almost $4\frac{1}{4}$ bushels of seed; but by my estimate, it will require rather less than two bushels, which is more than is usually sown in other parts of India. From what I afterwards learned, I am persuaded that the quantity of seed required for an acre in *Malabar* is from 2 to $2\frac{1}{4}$ bushels an acre, and

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more commonly nearer the last than the first quantity. According to Mr. Smee's calculation, the average produce of a *Poray* sowing, including all Mr. Warden's district, is $7\frac{1}{2}$ *Porays;* which, according to Mr. Warden's estimate, would make the produce of an acre $32\frac{1}{2}$ bushels; but according to my measurement $14\frac{1}{2}$ bushels, and according to the last mentioned estimate $16\frac{3}{4}$ bushels.

Cultivation of *Paddum* land. Sugar-cane.

The only article of any consequence that is cultivated in the *Paddum* land is rice. A little sugar-cane has been lately introduced; but it is planted only in small spots by the sides of tanks, or on the banks of rivulets. These places are not included in the lands assessed by government, but they pay rent to the landlord.

Rice, Irrigation.

The rain is every where sufficient to bring one crop of rice to maturity; and in the lower grounds a second crop of rice may be depended on, wherever small reservoirs have been constructed to give a few weeks supply toward the ripening of the corn after the rainy season has abated. These have been formed, and are kept up, at the expense of the landlords. The declivity of the country is in general such, that, whenever the cultivators please, all superfluous water can be let off, and the fields may again at pleasure be inundated; and by custom, a regular plan of watering every valley has been established; so that the caprice or malice of those who occupy one part of it may not prevent their neighbours from receiving the usual supply. In some places, where there is not a sufficient level, the superfluous water is thrown off by a basket suspended between four ropes, and wrought by two men; a manner of raising water practised in China, as well as in every part of India.

The *Dhanmurry,* or rice-field, is divided into two kinds; the one called *Palealil,* and the other *Ubayum.*

Palealil lands.

The *Palealil* lands are the higher parts of the rice-ground, and never produce more than one crop in the year. On this kind of land two sorts of rice are cultivated, the *Navara,* and the *Mundupallay.*

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Cultivation of *Navara* rice, sown sprouted.

For *Navara* rice the field is ploughed ten times, between the 12th of May and the 12th of June, after the rain has reduced the soil to mud. The manure is given after the third ploughing. The field, having been ploughed, is smoothed with the *Uricha Maram* (Plate XIX. Fig. 46.), which is drawn by two oxen, yoked as usual by the yoke, or *Nocum* (Plate XIX. Fig. 47.). To drain off the water, two furrows are then drawn, with the usual plough of the country (Plate XIX. Fig. 48.). When drained, the field is smoothed by the women, who draw over it a small square stick called *Pati*. After this the seed is sown broad-cast, having been previously prepared so as to sprout. This prepared seed is here called *Mola vittu*. The field, after having been sown, is for fifteen days kept free of water. The female slaves then weed it, and with the hand separate the young plants to equal distances. This operation takes up four or five days, after which the field is inundated, until ripe, which happens in three months after it has been sown. The corn is cut about nine inches from the ground. The grain is separated from the straw by beating handfuls on the ground, or against a stone. That which is wanted for seed must be beaten immediately after being cut, and dried in the sun seven days. That intended for consumption must be all beaten in the course of three days, and requires only four days sun to be sufficiently dry. The straw is afterwards dried in the sun four or five days, and then trodden by the feet of oxen, or beaten with a stick, to separate the rice that, from having been less ripe, did not fall at the first beating. This second quality of rice is kept for the use of the slaves, and is considered as adequate to their maintenance. The grain in the husk is kept in large *Bamboo* baskets, from six to nine feet high, and from three to five feet in diameter. These baskets, called *Valla-vutti*, are coated on the outside with a mixture of cow-dung and clay, and are covered with lids of the same materials. They are kept on planks, which are raised from the floor of the house upon stones. Rough rice is also preserved in larger baskets, called *Vullam*,

Manner of preserving the grain.

PLATE XIX.

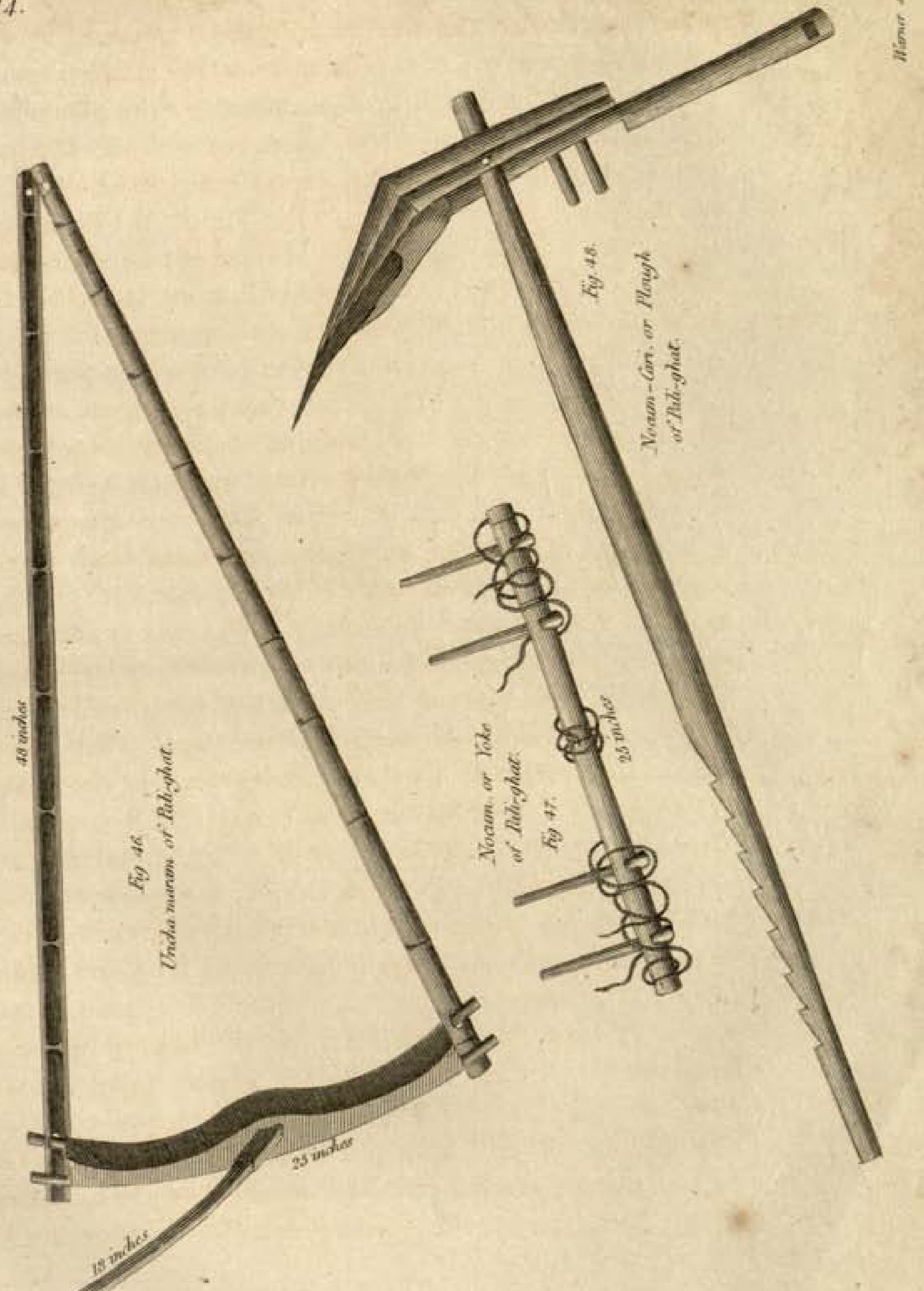
Fig. 46.
Undu maram or Pali-ghat.
48 inches
25 inches
18 inches
Nocum, or Yoke
of Pali-ghat.
Fig. 47.
25 inches
Fig. 48.
Nocum-Cari, or Plough
of Pali-ghat.
Warner sc.

which contain from two to four hundred *Porays*, or from 65 to 130 bushels, and are placed under sheds built for the purpose. In either of these rough rice will keep well for three years. All kinds of this grain keep equally well, and the harvest of all the kinds is managed in the same manner. This crop is apt to fail from drought, but excessive rain does it no injury.

Cultivation of *Mundu-pallay*, sown broad-cast.

The rice called *Mundu-pallay* may be either cultivated, like the *Navara*, after the sprouted-seed manner; or the dry-seed may be sown broad-cast; or it may be transplanted. The only difference between it and the *Navara*, when cultivated after the sprouted-seed manner, is, that it requires four months to ripen. In this country, when the dry-seed is sown broad-cast, the cultivation is called *Pudiaki*. When this is to be performed, the ground is ploughed two or three times, immediately after the preceding crop has been reaped. Then, at any time in the course of six or seven months, it is manured. Between the 12th of March and the 10th of April, after a shower, it is ploughed again ten times. After a heavy rain, in either of the two following months, the seed is sown broad-cast, and covered with the plough. On the third day the field is ploughed across. At each ploughing the clods must be carefully broken with a stick, and smoothed with a hoe called *Caicotu* (Plate XXI. Fig. 55.). At the end of the month the weeds are removed, and the field is afterwards inundated. This is reckoned the least troublesome manner of cultivation. The seed requires to be sown a little thicker than in the sprouted-seed cultivation, and the produce is nearly the same.

Cultivation of *Mundu Pallay*, when transplanted.

The following is the manner of cultivating the transplanted *Mundu-pallay*, which method of cultivation is here called *Naduga*. The *Maytan*, or ground kept for raising seedlings, is chosen in a high situation and poor soil. It pays neither rent nor land tax. In the course of the preceding year it is ploughed three or four times. Some then give it dung, others do not. After rain, between the 11th of April and the 11th of June, it is ploughed again five or

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six times, no water being kept on it. The clods are then broken with a stick, and cleaned by a rake drawn by oxen, and called *Varundy Maram* (Plate XX. Fig. 49.), which is drawn twice over the field in different directions, and serves as a harrow. On one *Poray-candum*, three *Porays* of seed are sown, and covered by two harrowings with the rake drawn by oxen. On the third day the field has a slight ploughing, the plough-share being purposely drawn up, so as not to project beyond the timber part. The water is never allowed to inundate the seedlings until they are fit for transplanting, which they are in from 25 to 30 days. When the seed has been sown, the field into which it is to be transplanted begins to be cultivated. It is ploughed two or three times, then dunged, and afterwards ploughed again five or six times. It is always inundated, except when any operation is going to be performed, and then the water is let off. After the ploughings the clods are broken with the implement called *Chavita Maram* (Plate XX. Fig. 50.), which is drawn by two oxen, while the driver stands on it, to increase the weight. The field is then ploughed again twice, and smoothed with the implement called *Uricha Maram*. The seedlings are watered for a day to loosen the roots; then they are pulled, and for three days small bundles of them are placed in the mud, with the roots uppermost. On the fourth and fifth days they are planted. The seedlings raised on one *Poray-candum* serve to plant four fields of that extent. Fifteen days after planting the field is inundated. This is the most troublesome manner of cultivating rice.

Ubayum land.

The lower parts of the rice-land *(Dhanmurry)* are called *Ubayum*, and a great number of these produce annually two crops.

First crop.

The kinds of rice cultivated in the first crop are *Sambau*, *Shornali*, *Callma*, and *Carpali*. The first crop is cultivated, in all the three manners, in about the following proportion: $\frac{64}{100}$ as dry-seed, $\frac{26}{100}$ as transplanted, and $\frac{10}{100}$ as sprouted-seed.

The cultivatio is the same with that which is used for the rices called *Navara*, and *Mundu-pallay*; only the soil, being stiffer,

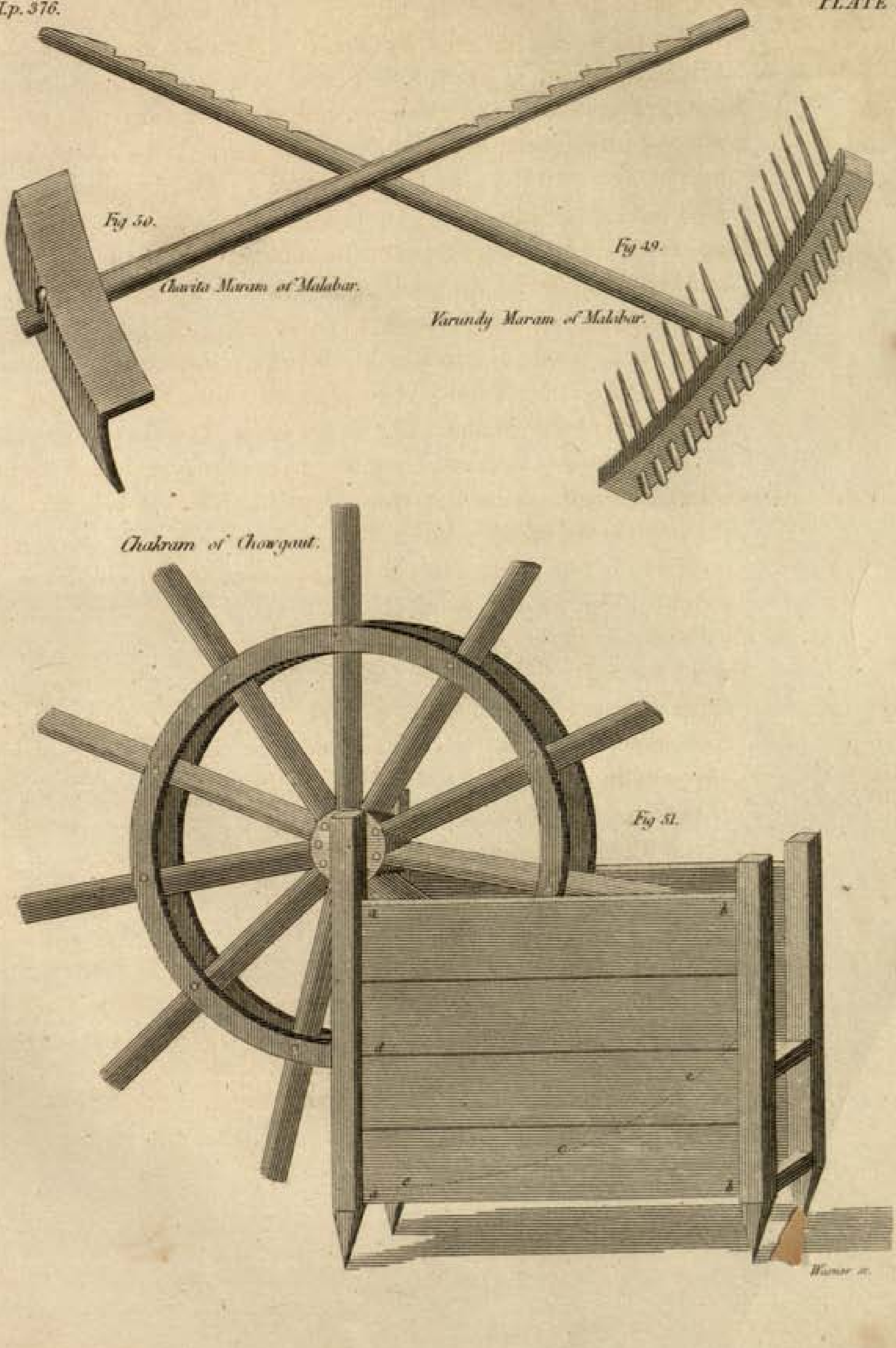
Fig 50.
Chavita Maram of Malabar.
Fig 49.
Varundy Maram of Malabar.
Chakram of Chowgaut.
Fig 51.

requires two more ploughings, and the seasons at which the operations are performed are somewhat different. The time for sowing the dry-seed is the same, and so is the harvest of the *Carpali* rice; but the *Sambau* is one month, the *Shornali* one month and a half, and the *Callma* two months later in coming to maturity. The quantity of seed sown on the same extent of ground is nearly equal; but the produce is more considerable, especially that of the *Callma*. In the transplanted cultivation the seed is sown toward the 11th of May, and the transplantation must be performed between the 11th and the 26th of June. The quantity of seed is the same as that of *Mundu-pallay;* the produce is rather more, especially that of the *Callma*. These kinds of rice, cultivated as sprouted-seed, produce very poor crops.

Second crop.

The kinds of rice cultivated in the second crop are, *Maliga* or *Shiriga Sambau*, *Shittany*, *Bally Shittany*, and *Nonan*. It is almost entirely transplanted: for these kinds of rice, none but a few poor creatures use the sprouted-seed cultivation. The *Maytan*, or seedling bed, receives less seed at this season than for the first crop, especially of the *Maliga Sambau*. It may be sown at any time from the 28th of July until the 28th of August. The seedlings may be transplanted at any time between the 14th of August, and the 13th of November. Before the *Maliga Sambau*, the first crop is often omitted, and then it is sown early, and its produce is considerable. The crop of the other kinds is small, and very precarious. It depends upon rain coming from the eastward in December, which it sometimes fails to do.

Rice requiring long to ripen. *Ariviray*.

In this country there is another set of rices, that require eight or nine months to ripen. The only one of these that is cultivated in this immediate neighbourhood is that called *Ariviray*. It is sown on land lower than the *Palealil*, but not so low as that which gives two crops. It is cultivated in the same manner as the *Mundu-pallay*, both as dry-seed, and as a transplanted crop. The former is sown about the 11th of April, and the crop is rather a scanty one.

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The seedlings, in the transplanted crop, are moved between the 12th of June and the 13th of July, and are planted very thin.

Cutaden. In some parts of the country there is a kind of rice called *Cutaden*, which requires a year to ripen, and grows in places where the water remains long, and is very deep. The persons from whom I have my information are not acquainted with the manner in which it is cultivated.

Parumba, or high lands. In the arable parts of the high or *Parum* lands, which pay no land tax, the following articles are cultivated:

Produce.

Modun, *Morun*, or hill-rice.

Ellu, or *Sesamum*, by the English in India called *Gingely.*

Ulindu, *Phaseolus minimoo* Roxb: MSS.

Carum Pyro, *Dolichos Catsjang semine nigro.*

Shayro Pyro, *Phaseolus mungo.*

Shamay, *Panicum miliare* E. M.

Manure. This kind of land is in general cultivated once in two years only, and requires a year's fallow to recover its strength; but in places near villages, where it receives manure, or is much frequented by men and cattle, it gives a crop every year. Whatever crop is to be taken, the long grass and bushes growing on this ground are always cut down by the roots, and burned, before the first ploughing, for the ashes serve as a necessary manure.

Modun rice. For *Modun* rice the ground is ploughed two or three times between the 14th of November and the 12th of December. Between the 12th of March and the 10th of April, with the early rains, the field is manured with dung and ashes, and is ploughed again two or three times. Between the 12th of June and the 13th of July the seed, without preparation, is sown broad-cast, and covered with the plough, after which the clods are broken with a large stick. On the third day the field is ploughed across, and the clods are broken again, and made smooth with the hoe called *Padana Caicotu* (Plate XXI. Fig. 56.). At the end of a month the weeds are removed by the hand. If the rain does not come plentifully between

the 14th of August and the 13th of September, the whole crop is lost; but, when the season is favourable, this crop is as good as is usual in the low or *Paddum* lands. For all the grains cultivated on this kind of land, the *Patom*, or neat rent, is one-fifth of the gross produce. CHAPTER XI. Dec. 1—4.

Sesamum. The most considerable crop here on *Parum* land is *Sesamum*, of which there are two kinds, the *Shiray* and *Peri Ellus*. These are always sown separately; but they are cultivated at the same season, in the same manner, and in the same kind of soil. Between the 14th of July and the 13th of August, the small bushes, growing on the fields are cut, dried for two days, and then burned. The field is then ploughed seven times. Between the 14th of August and the 13th of September, after seven days fair weather, the seed is sown, and covered with the plough. Twenty days afterwards, that is, about four weeks after the rains from the westward have ceased, the rains from the eastward ought to commence. If these come, there will be a good crop, which is ripe between the 13th of December and the 11th of January. The *Shiray* ripens ten days earlier than the *Peri*. Too much rain, when the plants are in flower, is very apt to injure the crop.

Pulse. All the pulses called *Ulindu, Carum Pyro,* and *Shayro Pyro,* are cultivated in the same manner. The field is ploughed once between the 12th of January and the 9th of February; the seed is sown immediately afterwards, and covered with a cross ploughing. Between the 14th of September and the 14th of October these pulses ripen without farther trouble.

Shamay. For *Shamay* the field is ploughed five times between the 11th of April and the 11th of May. After a shower of rain, it is harrowed with the rake drawn by oxen; then sown; and the seed is covered by another harrowing. It is ripe between the 14th of July and the 13th of August.

Rotation. In such part of the high lands as is manured sufficiently to enable it to produce annually a crop of grain, a rotation has been

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introduced: 1st year *Shamay*, 2d year *Ulindu*, 3d year either of the *Pyros*. Another rotation is alternate crops of *Sesamum* and *Shamay*. The pulses and *Sesamum* can never be sown in the same field.

The want of rent injurious to cultivation.

The cultivation of the arable part of the high lands is that which is by far the most neglected in this part of the country, yet no land-tax has been imposed on it; which in my opinion clearly shows, that the clamours raised against that tax, as injurious to cultivation, are groundless.

Manure.

Ashes and cow-dung are carefully collected for manure; and the latter is preferred when dry and rotten. The quantity is therefore very small, as nothing is mixed with the dung, to rot, and increase its bulk. The leaves of every kind of bush and tree that is not prickly are, however, used as a manure for rice-land.

Cattle of the cow kind.

The native oxen of this country are of the same form or breed with those in *Coimbetore* and *Mysore;* but they are much smaller, and are indeed the most diminutive cattle that I have ever seen. A few good ones are imported from *Coimbetore*, generally when very young. Mr. Warden thinks the native cattle very inadequate to cultivate the land properly; and states, that upon inquiry he has been informed, that the produce of a field ploughed with large oxen is nearly double of that which has been tilled with the common oxen of *Malabar*.

In small huts contiguous to their houses the *Puttar Bráhmans* commonly keep four or five cows, and the farmers have generally one or two. When a man's stock of cows is larger, they are kept, with the labouring cattle, in a house built at some distance from the abode of free-men, in the place where the slaves are permitted to dwell when the crop is not on the ground; for these poor creatures are considered as too impure to be permitted to approach the house of their *Devaru*, or lord. The cow, in her fourth or fifth year, has her first calf, and generally breeds five or six times. She gives milk about fourteen months, and is then dry about ten months

before she has another calf; so that she lives about sixteen years. For the first fifteen days, the calf is allowed to suck the whole milk; for the first ten months it gets a share, but none afterwards. A good cow, fed by a *Bráhman*, besides what the calf gets, gives daily 1½ *Puddy* of milk, or about 80 cubical inches: but, if fed by a farmer, owing to his comparative poverty, she will give only one *Puddy*. The cows feed all day on the pasture, and at night have cut grass, or straw; but the *Bráhmans* give them oil-cake also during the time they are in milk.

Neglect of the breed.

The women of the *Bráhmans*, when they are afraid of not having children, carry a bull-calf to the temple of *Siva*, and dedicate it to that god, in hopes that he will avert, what they consider as a great evil. The bulls so dedicated are ever afterwards considered as sacred, are allowed to roam about wherever they please, and are in general very well fed, almost every one that has any grain to spare giving them some as they pass. These are properly the town-bulls; but their duties are often performed by the young cattle intended for labour, which are not emasculated until they are between four and five years of age. This want of selection, in the males intended to keep up the breed, seems one great cause of the degeneracy of the cattle.

Management of the cattle.

The oxen are never wrought until after they have been emasculated, and they continue capable of labour for five or six years. Rich men feed their labouring cattle four months on grass, and eight months on straw. Poor people can only allow straw for one half of the year. Every man who occupies rice-land *(Dhanmurry)* has a certain part of the high land attached to it for pasture; and to this he has an exclusive right, without paying rent: but any man may cut grass wherever he pleases.

Buffalo.

The buffaloes also of this country are of a very poor breed. Both males, and females when not giving milk, are put into the yoke, and, like the ox, are wrought from about six to nine in the

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morning, and from two to six in the evening. In the sowing season they are wrought an hour longer. In the same space of time the ox performs somewhat more labour than the buffalo; but the buffalo, having more strength, is capable of turning up stiffer soils than the ox can do. The male buffaloes, intended for labour, are emasculated when they are between five and six years of age. The two kinds of cattle are fed much in the same manner. The quantity of milk given by the female buffalo here does not exceed that given by the cow, and it is reckoned of an inferior quality: both are, however, generally mixed for making butter, which among the natives of *Malabar* is very bad and nasty.

Distemper among the cattle.

Last year, for five months, the *distemper* prevailed among both kinds of cattle, but was most severe upon the buffaloes. It is said to have carried off about one half of the whole stock, but the loss is perhaps greatly exaggerated.

Stock of cattle.

According to Mr. Warden's returns, the number of cattle of the ox kind in his districts amounts to 39,575, and of the buffalo kind to 11,762, in all 51,337. The number of ploughs which these work amounts to 14,433. It must be observed, that the farmers estimated a plough to be capable of cultivating 40 *Porays* of low *(Paddum)* land, probably including the small portion of arable high *(Parumba)* land which falls to each man's share, in proportion nearly to the extent of the low lands that he occupies, and which, requiring little comparative labour, would add about 2 *Porays* to each plough. Now on this supposition, which cannot be very erroneous, the number of ploughs in the district could only cultivate 577,320 *Porays* of low land *(Dhanmurry)*. Mr. Warden's estimate makes the *Porays* actually cultivated 758,460. This I have corrected, by allowing one fourth of the low land called *Ubayum* to be cultivated twice a year, to 613,205 *Porays;* but it is probable, that I have under-rated the extent of land producing two crops: the difference, however, on the data given is very small; in place of

Estimate of the proportion of land giving two crops.

$\frac{3400}{10000}$ of the *Ubayum* land being cultivated twice, as I supposed by the statement given of the number of ploughs, we ought to allow $\frac{3444}{10000}$.

Few domestic animals among the natives.

No horses, asses, swine, sheep, nor goats, are bred in *Malayala*, or at least the number is perfectly inconsiderable. All those required for the use of the inhabitants are imported from the eastward. The original natives had no poultry; but since Europeans have settled among them, the common fowl or pullet may be had in abundance. Geese, ducks, and turkeys, are confined to the sea coast, where they are reared by the Portuguese.

Forests.

The part of Mr. Warden's districts occupied by thick forests, and almost uninhabited, is very extensive. The forest which is a continuation of the *Ani-malaya* woods, and which lies between the frontier and *Colangodu*, is about seven miles long, and nearly the same in breadth. To the eastward of *Pali-ghat* there is another extensive forest, and there is a long narrow space in the south-east corner of the district. The hills toward the south are covered with trees to the summit; while those toward the north, like all the other *Ghats* extending from thence to the east, are naked on the prominent parts, and only covered with trees in their recesses or glens.

Puddies, or villages, of the rude tribe called Malasir.

The forests here are divided into *Puddies*, each of which has its boundary ascertained, and contains one or more families of a rude tribe, called *Malasir*. Both the *Puddy* and its inhabitants are considered as the property of some landlord, who farms out the labour of these poor people, with all that they collect, to some trader (*Chitty*, or *Manadi*), who treats the *Malasirs* much in the same manner as the *Malypuddy* of *Ani-malaya* does the rude tribes under his authority, and receives from them nearly the same articles. In fact, this is a most iniquitous mode of taxing the *Malasir*, and the produce of it is a mere trifle. The most productive *Puddy* in the whole district pays only four *Rupees* a year. A capitation tax on the

CHAPTER XI. *Malasir* might raise a greater income to the proprietors of the woods, and be much less oppressive.

Dec. 1—4. Customs of the *Malasir.*

Having sent for some of these poor *Malasirs*, they informed me, that they live in small villages of five or six huts, situated in the skirts of the woods on the hills of *Daraporam*, *Ani-malaya*, and *Pali-ghat*. They speak a mixture of the *Tamul* and *Malayala* languages. They are a better looking people than the slaves; but are ill clothed, nasty, and apparently ill fed. They collect drugs for the trader, to whom they are let; and receive from him a subsistence, when they can procure for him any thing of value. He has the exclusive right of purchasing all that they have for sale, and of supplying them with salt, and other necessaries. A great part of their food consists of wild *Yams (Dioscoreas)*, which they dig when they have nothing to give to the trader for rice. They cultivate some small spots in the woods after the *Cotu-cadu* fashion, both on their own account and on that of the neighbouring farmers, who receive the produce, and give the *Malasirs* hire. The articles cultivated in this manner are *Rali (Cynosurus corocanus)*, *Avaray (Dolichos Lablab)*, and *Tonda (Ricinus palma christi)*. They are also hired to cut timber and firewood. In this province they pay nothing to the government. They always marry girls of their own village, and never take a second wife unless the first dies. Marriage is indissoluble, except in case of infidelity on the part of the woman. When such a thing happens, the people of the village assemble; the woman is well flogged, and returned to her parents. The husband never receives her back; but any other person, that is inclined, may marry her. A widow may marry again; but a girl who has arrived at the age of puberty as a virgin is considered impure, and no person will take her for a wife. When a man wishes to marry his son to any girl of the village, he speaks to her parents, generally while both the parties are very young; the father of the girl must give her to the first suitor; and should the boy die, before

the ceremony is performed, the poor girl cannot get a husband. The boy's father, when the proper time is arrived, gives a dinner to all the relations, with two *Fanams* to the bride's mother, two *Fanams* to the girl for a new dress, and one *Fanam's* worth of spirituous liquors for the guests. The girl is delivered over to the boy, and the marriage is considered as valid. The elder sons of a family, as they grow up and marry, build separate huts for themselves. The parents continue to live with the youngest son; but his elder brothers contribute to their parents support when they are no longer able to work. The *Malasir* burn the dead, and seem to have no knowledge of a future state. The god of their tribe is called *Mallung*, who is represented by a stone that is encircled by a wall, which serves for a temple. Once a year, in April, a sacrifice of goats, and offerings of rice, honey, and the like, are made by the *Malasir* to this rude idol. If this be neglected, the god sends elephants and tigers to destroy both them and their houses. There is no priest for this god, nor do the *Malasir* acknowledge any *Guru*, or a dependance on the *Bráhmans*. The wax that these poor people might collect in a year Mr. Warden estimates at 600 *Tolams*, or about 24¼ hundred-weight.

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Wax.

Timber.

The most valuable production of these forests, however, is their timber, of which there are several good kinds; but the *Teak* is by far the most valuable. To the increase or preservation of this, little or no attention has been paid; but about two years ago an order was issued by the commissioners, prohibiting any trees from being cut that were under certain dimensions; and trees of the regulated girth are said by Mr. Warden to be too heavy for the native carriage. These forests possess a great advantage, in being intersected by many branches of the *Panyáni* river, which in the rainy season are large enough to float the timber down to the sea. All the hills near this river seem naturally fit for producing the *Teak*; and with a little pains, in the course of time, very valuable forests of that excellent tree might be reared. All that would be

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required would be to cut down every other kind of timber, allowing the *Teak* to spring up naturally, which it will every where do; and to enforce the commissioners' regulation concerning the size of the trees. In the course of fifty or sixty years, very excellent forests might thus be formed near water carriage, very much to the advantage of their proprietors and of the nation; but these people are so ignorant, that, without compulsion, it could not be expected that any such plans should be carried into effect. At present, every man who chooses to give the landlord a *Fanam* may cut down a tree, and all the valuable trees being cut, while the useless ones are allowed to remain and come to seed, the consequence is, that in all places of easy access the valuable kinds have become almost entirely extinct. Mr. Warden thinks, that at present between four and five thousand *Candies* of *Teak*, fit for shipbuilding, might be annually procured from the forests in his districts; but that could only be done by a large body of trained elephants, an expense beyond the reach of individuals, and only to be undertaken by the Company. The *Candy* of *Teak* timber, when seasoned, measures 10½ cubical feet.

Elephants.

The elephants are a dreadful nuisance to the farmers who live near these forests, and have prevented much land, formerly deserted, from being again cultivated. A regular hunting of them, carried on from *Ani-malaya* to *Priya-pattana,* would be a great relief, and might be done to advantage if the Company could afford to purchase the elephants.

Iron ore.

Near *Colangodu* four forges are supplied with iron ore. The ore is the usual black sand, and is found mixed with clay in *strata* near the river.

Granite.

An immense rock near the temple of *Bhagawat* consists of a good grey granite, very fit for building; and indeed the temple is constructed of this stone. The structure of this granite is evidently lamellar, the plates being vertical, and running east and west, as they do in *Coimbetore:* in some places the plates have a sort of circular disposition

round a centre, somewhat like the layers round a knot in wood; in others they are undulating, and have a resemblance to the waving figures on marbled paper. Each of the plates containing different proportions of the felspar, quartz, and mica, they are more distinguishable by their colour, than by its being practicable to separate them. The rock here contains fewer veins of quartz than any granite that I have hitherto seen in the peninsula. Although the plates are vertical, the rock is divided by parallel horizontal fissures that have a smooth surface, and which is frequently the case with aggregate rocks in all the south of India. This greatly facilitates the cutting of stones for building; as wedges readily cut off large masses, by being driven in at right angles to the fissures.

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Dec. 5.

State of the country.

5th *December*.—I set out, in company with Mr. Waddel, lately superintendant of the southern division of *Malabar*, whose activity as a magistrate, while his office lasted, had procured him many enemies among the ruffians who have long infested this part of the country. Mr. Warden was so good as to accompany us to our stage at *Lacaday cotay*. On our route we were joined by armed *Nairs*, who said they had come from all quarters to protect us from the ruffians, who are mostly *Moplays*. We saw nothing, however, to cause alarm. We first crossed the river which passes the south side of the fort, and is a fine clear stream. We afterwards crossed the same, after it had united with the northern river, forming one of the clearest and most beautiful streams that I have ever seen. The ford is at *Mangada*, called by Major Rennell *Mangery cottay*. The fort that was there has gone entirely to ruins, and there is no market at the place. The country is very beautiful; a mixture of little hills, swelling grounds, and rice fields, which seem to bear but a small proportion to the high lands. These are in a very bad state of culture. *Sesamum* is the most common crop, and it looks very well. *Lacaday* is in the territory formerly belonging to the *Tamuri Rájá*. The remains of the fort are now scarcely discernible.

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Dec. 6.

There is at this place a small market, chiefly inhabited by *Tamuls;* for the original natives of *Malayala* seem rarely, if ever, to have kept shops.

Face of the country.

6th *December.*—In the morning Mr. Waddel and I went about ten miles toward the south, as it was dangerous for him to go by the direct road. We passed through a beautiful country, consisting of low hills intersected by narrow fertile vallies; the whole, like that which we saw yesterday, finely wooded and well peopled. The high grounds in a few places are rocky, but their soil is in general good. Their cultivation is exceedingly neglected. We first crossed the same river that we did yesterday at *Mangada,* and then a branch of the same coming from the south-east. Both of them are fine streams. At the first river we entered the dominions of the *Cochi Rájá,* and found the chief men of the country, called *Nambirs,* waiting for us with a numerous band of *Nairs,* who were commanded by an officer in a uniform resembling the Dutch. Every possible attention was shown not only to ourselves, but also to supply the wants of our followers; and we were escorted by the officer's party to *Paryunuru,* where we encamped.

Cochi Rájá.

The *Cochi Rájá* pays an annual tribute to the Company, as he did to *Hyder* and *Tippoo;* but he retains full jurisdiction, civil and military; and his country is so far better administered than that more fully under the authority of the Company, that neither *Moplays* nor *Nairs* presume to make any disturbance. It is said, that this prince's government is rather severe and cruel; but with a people so exceedingly turbulent, a vigorous government at least is necessary.

Turbulence of the natives.

Both *Nairs* and inland *Moplays* pretend to be soldiers by birth, and disdain all industry. Their chief delight is in parading up and down fully armed. Each man has a firelock, and at least one sword; but all those who wish to be thought men of extraordinary courage carry two sabres. As every man walks about with his

sword drawn, assassinations are very frequent; which indeed cannot be avoided among a barbarous people with weapons always ready: CHAPTER XI. Dec. 6.

Αυτος γαρ εφελκεται ανδρα σιδηρος.

It is said also, that the *Rájá* wrings much money from his people; but I see no appearance of their being reduced to poverty, either in their houses or persons.

Paryunuru is a large *Désam* without any market. It has a small temple, and a *Colgum*, or house belonging to the *Rájá*.

Dec. 7. Face of the country.

7th *December*.—We went a short stage to *Shelacary*. The road leads through a most beautiful country. The rice grounds are narrow valleys, but are extremely well watered by small perennial streams, that enable them annually to produce two crops. Very little of the high ground is cultivated. I observed, however, some fields, that contained the *Cytisus Cajan*, more luxuriant than I ever before saw. The houses of the natives are buried in the groves of palms, *mangoes, jacks*, and plantains, that skirt the bottoms of the little hills. Above these are woods of forest trees, which, though not quite so stately as those of *Chittagong*, are still very fine, and are pleasant to walk in, being free from *Rattans* and other climbers. The *Teak*, and *Viti*, or black-wood, abound in these woods; but all the large trees have been cut; and no care is used to encourage their growth, or to check that of useless timber.

Nairs of the *Cochi Rájá*.

We were escorted by many of the *Rájá's Nairs*, and were met by one of his officers of cavalry, well dressed in a blue uniform with white facings, and attended by two orderlies in a similar dress. They wore boots and helmets, and the officer had a gorget; the whole exactly after the European fashion. He informed us, that the *Rájá* had been very desirous of meeting us; but that at present he was so unwell, that he could not stand without support. This information, I believe, was merely complimentary. The *Rájá* has made tolerable roads through the hilly parts of the country

Roads.

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Dec. 7.

all the way we have come, and for our accommodation they had been repaired; but we were always much obstructed when we came to a valley, as the roads have not been continued through the rice fields. In fact, the road has been made from ostentation alone, and not from any rational view of facilitating commerce or social intercourse. There are no shops at *Shelacary*, but people were sent by the *Rájá* to supply our wants. Indeed, nothing can be more polite or attentive than the whole of his conduct.

Shelacary.

Colgum, or palace of a *Rájá* of *Malayala.*

Near our tents was a *Colgum*, or house belonging to the *Rájá*. It is a large square building, composed partly of stone, and partly of mud. The greater part of it is only one story in height; but in some places there is an upper floor. It is roofed with tiles, and totally destitute of elegance or neatness, but is looked upon by the natives as a prodigy. Like the other houses of the country, it is surrounded by a grove of fruit trees. Some *Sepoys* were here on duty, the mud walls surrounding the house being considered as a fort.

Dec. 8. Face of the country.

8th *December*.—We went a long stage to *Nellaway*, through a country similar to that which we passed yesterday; but the hills are higher, and much of the road is very bad. From the people of the *Rájá* we continue to receive every possible attention. *Nellaway* has a small temple, but no shops.

Nellaway.

Dec. 9. *Cacadu.*

9th *December*.—In the morning we went a short stage to *Cacadu*, through a country differing from that seen on the two preceding days, by its hills being much lower, and covered with grass in place of forest trees. Although the soil of these hills appears to be good, yet scarcely any part of them is cultivated; but the pasture seems to be tolerable, the cattle, though remarkably small, being in good condition. The country is very beautiful: its round hills covered with grass are separated by fine verdant fields of corn, skirted by the houses of the inhabitants, which are shaded by groves of fruit-trees.

Dec. 9. *Nazarens*, or *Malabar* Christians.

Opposite to our encampment was a *Nazaren*, or Christian village, named *Cunnung colung curry Angady*, which looks very well, being seated on a rising ground amid fine groves of the *Betel-nut* palm. The *Papa* or priest waited on us. He was attended by a pupil, who behaved to his superior with the utmost deference. The *Papa* was very well dressed in a blue robe; and, though his ancestors have been settled in the country for many generations, he was very fair, with high Jewish features. The greater part of the sect, however, entirely resemble the aborigines of the country, from whom indeed they are descended.

The *Papa* informed me, that his sect are dependent on the Jacobite patriarch of *Antioch*; but that they have a metropolitan, who resides in the dominions of *Travancore*, and who is sent by the patriarch on the death of his predecessor. None of the *Papas*, or inferior clergy, go to *Antioch* for their education, and all of them have been born in the country. My visitor understood no languages but the *Syriac*, and that of *Malayala*. He preaches in the latter; but all the ceremonies of the church are performed in the *Syriac*. In their churches they have neither images nor pictures, but the *Nazarens* worship the cross. Their clergy are allowed to marry; my visitor, however, seemed to be not a little proud of his observing celibacy, and a total abstinence from animal food. He said, that, so far as he remembers, the number of the sect seems neither to be increasing nor diminishing. Converts, however, are occasionally made of both *Nairs* and *Shanars*; but no instance occurs of a *Moplay* having been converted, nor of a *Namburi*, unless he had previously lost cast.

The *Papa* says, that the *Nazarens* were introduced, 1740 years ago, by a certain saint named *Thomas*, who, landing at *Meila-pura*, took up his residence on a hill near *Madras*, and which is now called after his name. He afterwards made a voyage to *Cochin*, and in that neighbourhood settled a church, which is now the metropo-

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litan, as the Portuguese drove all the *Nazarens* from the eastern coast. St. Thomas afterwards returned to *Meila-pura*, where he died. At that time *Malayala* belonged to the *Bráhmans*, who were governed by a *Rájá* sent by *Sholun Permal*, the sovereign king of the south. The *Papa* then related the history of *Cheruman Permal*, nearly as I have given it (page 348, 9.) on the authority of the *Namburis;* only he says, that this traitor, after having divided his usurped dominions, died before he reached Mecca. It was in his reign that the Mussulmans first arrived in India. They landed at *Challiem*, a place near *Vaypura*. The *Papa* says, that the metropolitan has an account of all his predecessors, from the time of Saint Thomas, with a history of the various persecutions that they have been subjected to by the governing powers, the worst of which would appear to have been that inflicted by the Portuguese. He promised to send me a copy of this kind of chronicle, but has not been so good as his word.

A *Bráhman* of the place says, that when any slaves are converted by the *Nazarens*, these people bestow on them their liberty, and give them daily or monthly wages. He said also, that the *Nazarens* are a very orderly, industrious people, who live chiefly by trade and agriculture.

In the afternoon we went to the *Nazareny* village, which contains many houses regularly disposed, and full of people. For an Indian town it is well built, and comparatively clean. It has a new church of considerable size. An old church is situated at some distance on a beautiful rising ground. It is now unroofed; but the walls, although built of indurated clay only, continue very fresh and strong. The altar is arched over with the same materials, and possesses some degree of elegance. The burying ground is at the west end of the church, where the principal door is placed. From its being very small, the graves must be opened long before the bones are consumed. As the graves are opened for new bodies,

the old bones are collected, and thrown into an open pit near the corner of the church, where they are exposed to the view of all passengers.

CHAPTER XI.

Dec. 9.

Chitwa, or Shetuwai, on the island of Mana-puram.

From thence we went to *Chowgaut,* where we embarked in a canoe, and went to the house of Mr. Drummond, the collector, who resided then at the place called by us *Chitwa,* but by the natives *Shetuwai.*

Dec. 10, 11.

10th and 11th *December.*—I remained with Mr. Drummond at *Chitwa.* This place is situated in an island, which is twenty-seven miles long, and in some places five miles wide, and which by Europeans is commonly called the island of *Chitwa;* but its proper name is *Mana-puram.* It consists of two districts, *Shetuwai,* and *Atty-puram;* and is separated from the continent by beautiful inlets of salt water, that form the northern part of one of the finest inland navigations imaginable. The soil of the island is in general poor; and, although the whole may be considered as a plain, the rice fields are very small in proportion to the *Parum* or elevated land, which rises a few feet only above the level of the sea. Water may every where be procured by digging to a little depth; there can be no doubt, therefore, but that with proper industry the whole might be made productive. The shores of the island are covered with coco-nut palms, from which the revenue is chiefly derived. The whole is rented by the *Cochi Rájá* of the Company, at 30,000 *Rupees* a year. He possesses no legal jurisdiction over the inhabitants; but daily complaints are preferred against him to the collector, to whom he is accused of great cruelty.

Inland navigation.

Of the Tamuri Rájá, or Zamorin.

I here had a conversation with one of the *Carigars,* or ministers of the *Tamuri Rájá,* the person who manages the affairs of that chief. He says, that all the males of the family of the *Tamuri* are called *Tamburans,* and all the ladies are called *Tamburettis:* all the children of every *Tamburetti* are entitled to these appellations; and, according to seniority, rise to the highest dignities which belong to the family. These ladies are generally impregnated by *Namburis;*

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although, if they choose, they may employ the higher ranks of *Nairs*; but the sacred character of the *Namburis* almost always procures them a preference. The ladies live in the houses of their brothers; for any amorous intercourse between them and their husbands would be reckoned scandalous. The eldest man of the family is the *Tamuri Rájá*, called by Europeans the *Zamorin*. He is also called *Mana Vicrama Samudri Rájá*, and is crowned. The second male of the family is called *Eralpata*, the third *Munalpata*, the fourth *Edatara Patana Rájá*, the fifth *Nirirupa Muta Eraleradi Tirumulpata Rájá*, and the sixth *Ellearadi Tirumulpata Rájá*. The younger *Tamburans* are not distinguished by any particular title. If the eldest *Tamburetti* happen to be older than the *Tamuri*, she is considered as of higher rank. The *Tamuri* pretends to be of a higher rank than the *Bráhmans*, and to be inferior only to the invisible gods; a pretension that was acknowledged by his subjects, but which is held as absurd and abominable by the *Bráhmans*, by whom he is only treated as a *Súdra*.

Government.

During the government of the *Tamuris*, the business of the state was conducted, under his authority, by four *Savadi Carigars*, whose offices were hereditary, and by certain inferior *Carigars*, appointed and removed at the pleasure of the sovereign. The *Savadi Carigars* are, 1st. *Mangutachan*, a *Nair* of the tribe called *Súdra*; 2d. *Tenancheri Elliadi*, a *Bráhmán*; 3d. *Bermamuta Panycary*, also a *Súdra Nair*; and 4th. *Paranambi*, a *Nair* of the kind called *Nambichan*. The inferior *Carigars* managed the private estates, or *Chericul* lands, of the *Tamuri*, and collected the revenues. These consisted of the customs, of a fifth part of all the moveable estates of every person that died, and of fines; of course, the *Carigars* were the administrators of justice, or rather of what was called law. They were always assisted by four assessors; but, the selection of these being left to themselves, this provision gave little security to the subject. Eight tenths of all fines went to the *Tamuri*, and two tenths to the judge. For capital punishments, the mandate of the *Tamuri* was

required. The defence of the country rested entirely on such of the *Nairs* as received arms from the *Tamuri*. These were under the orders of *Nadawais*, who commanded from 200 to 3000 men, and who held their authority by hereditary descent. The *Carigar* says, that these *Nadawais* had lands given them, in proportion to the number of men that each commanded; but how that could be, when the whole lands belonged to *Namburi* landlords, I do not understand. The soldiers, when on actual service, received a certain small subsistence. CHAPTER XI. Dec. 10, 11.

Tributaries. In cases of emergency, certain tributary or dependent chiefs were also summoned to bring their men into the field. These chiefs, such as *Punetur*, *Talapuli*, *Manacollatil*, *Ayenecutil*, *Tirumanachery*, and many others, acknowledged the *Tamuri* as their superior; but they assumed the title of *Rájá*, and in their respective territories possessed full jurisdiction. They were merely bound to assist the *Tamuri* with military service. He never bestowed on any of them the title of *Rájá*, either in writing or conversation, and treated with contempt their pretension to such a dignity. The principal *Colgum* of the *Tamuri* is near the fort at *Chowgaut*; but at present he is absent on business at *Calicut*.

Weights. The *Tolam*, by which all weighable goods are here sold, contains 120 *Polams*, each of ten *Pondichery Rupees*, or is nearly 30,$\frac{1}{7}$ lb.; but it differs in almost every circle.

Dry-measure. The *Poray* grain-measure is the same as at *Pali-ghat*, and is the same every where in Mr. Drummond's districts. By the merchants it is divided into ten *Edangallies*; but by the farmers it is divided into *Naras*, which differ in almost every *Désam*, and vary from five to ten in the *Poray*.

Land-measure. The *Poray-candum*, or *Poray-land*, is said, by the people here, to be nearly the same in extent all over *Malayala*; but the quantity of seed sown on a *Poray-candum* differs according to the soil. The proper extent of a *Poray-candum* is said to be 32 *Varracolus* square. The *Varracolu* is equal to 28 inches and $\frac{1}{4}$ English measure; and

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the *Poray-candum* is therefore very nearly 5825 square feet. This I am inclined to think applicable to at least all the low rice land near the sea.

Mr. Drummond's answers to the statistical queries which I proposed to him through the commissioners, not having been received, in my account of his district I have no assistance, except from Mr. Smee's valuable communication.

Paddum, the only rice-land near the sea.

The low land that lies near the sea is extremely sandy, and the quantity of rice-field is not very great. It is all of the kind called *Paddum*, no hill rice being cultivated except in the inland districts. A large proportion of it produces only one crop, and the second crop is always very precarious.

Produce, rent, and taxes of rice-ground.

The average produce of the whole rice lands in this district, according to Mr. Smee, is five *Porays* from one sown, or from one *Poray-candum*, which, according to the extent lately mentioned, will make the average produce a little more than $12\frac{1}{2}$ bushels an acre. But Mr. Smee deducted ten per cent. for contingencies, in order not to distress the cultivator; so that the actual average produce is a little more than $13\frac{3}{4}$ bushels an acre. According to the account of the people, every *Poray-candum*, on an average, pays two *Porays* of *(Patom)* rent; and the farmer, besides, discharges the land-tax. As this amounts on each *Poray-candum* to $1\frac{1}{4}$ *Fanam*, which is worth at the cheap season $1,\frac{434}{1000}$ *Porays* of rough-rice, it is evident that the *Poray-candum*, by which the tax is paid, must be quite different from an actual *Poray-candum;* for, deducting two *Porays* for seed and expense of cultivation, two *Porays* for rent, and $1,\frac{434}{1000}$ for taxes, the *Poray-candum* should on an average produce $5,\frac{434}{1000}$ *Porays*, besides what may be supposed necessary for the trouble of the farmer. On consulting these people, they explain this by saying, that it is only the best lands that are rated in the revenue accompts at their true extent, and that of the poor soils five *Poray-candums* are sometimes written as one. In middling soils two *Poray-candums* are rated in the revenue accompts as one, which reduces the medium *Negadi* to eight

Endangallies, even when the rice is lowest. Thus the farmer deducting ten per cent. for contingencies, on an average, pays 4,$\frac{5}{10}$ *Porays* for each *Poray-land*, and has $\frac{7}{8}$ of a *Poray* for neat profit, after deducting seed and expense of labour. The profits of the landholder here are much greater, and those of the farmer much smaller, than at *Pali-ghat*.

Manner of cultivating rice.

All the three methods of cultivating rice, which I call dry-seed, sprouted-seed, and transplantation, are here in use.

Dry-seed.

For dry-seed, the field immediately after the preceding crop has been cut, between the 14th of November and the 12th of December, must be ploughed twice. Every month afterwards, for the five following times, the ploughings must be repeated twice, and at one of these times some ashes must be sprinkled on the field. Between the 11th of April and the 11th of May, after a shower of rain and a ploughing, the seed is sown broad-cast, one *Poray* to a *Poray-candum*, or $2\frac{1}{2}$ bushels to an acre. Some farmers plough in the seed, while others cover it with a hoe. It then gets a sprinkling of ashes, the whole cow-dung being burned. The weeds are removed by the hand one month after the seed has been sown; and at the same time, if possible, some more ashes should be given. After this the banks are repaired, and the water is confined on the field. About the middle of July the weeds must be again removed. The seed time is sometimes a month later than that here stated. The kinds of rice thus cultivated are *Wonavuttun*, *Velletty vuttum*, and *Ericalay sambau*, requiring four months to ripen; and *Arien*, which requires six months to come to maturity.

Sprouted-seed.

The sprouted seed cultivation is managed here as follows. The ploughing season lasts six months, commencing about the middle of May. During any thirty days of this period, the field is ploughed from twelve to eighteen times, and is always kept full of water, except when the plough is at work; then the field is drained until the water does not stand deeper than a hand's breadth. At each ploughing, some leaves of any bush or weed that can be procured

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are put into the mud. Then manure is given, twenty baskets to one *Poray* of land. After this the mud is smoothed, by dragging over it a plank yoked to two oxen; and the water is allowed to drain off completely, by two or three small channels formed with the hoe. The prepared seed is then sown, as thick as in the dry-seed cultivation. Ten days afterwards two or three inches of water are allowed to rest on the field, and as the corn grows the depth is increased. When it is a month old, some ashes are sprinkled on it. This requires no weeding. The kinds of rice thus cultivated are fifteen in number, and require from three to six months to ripen.

Transplanted rice.

The manner of ploughing, and manuring, for the transplanted cultivation, is the same as for the sprouted-seed, and is performed at the same season. If the ground be clean, the seedlings are transplanted immediately from the field in which they were raised, into that in which they are to be reared to maturity; but if this be full of worms, they are exposed for three days in bundles on the little banks that separate the rice-plots; and there, in order to harden them, they are kept with their roots uppermost. When they are planted, the field contains about three inches depth of water. On the fourth day it gets nine inches, and ever after is kept inundated to that depth. Good farmers manure the field ten days after it has been planted. It requires no weeding.

Two crops.

The first crop may be cultivated after any of these three methods. The dry-seed cultivation requires by far the least trouble, and, if the early rains are copious, is equally productive with the others. Of the other two, the transplanted rice is rather the most troublesome; but, being most productive, it is much more commonly employed. In the second crop, the dry-seed cultivation cannot be used.

On the *(Dhanmurry)* low land no other article but rice is cultivated.

Parum, or high land.

The only grains cultivated on the higher lands here are *Carum Pyro (Dolichos catsjang)*, *Wulindu (Phaseolus minimoo)*, and *Ellu (Sesamum)*, and these in very small quantities. In the island of

Mana-puram a large share of the whole land is of this kind, and by far the greatest part of it is totally waste. The whole might probably be cultivated for these grains, or planted with coco-nut trees, which in gardens near the sea coast are the principal object, and which indeed near the sea are the most valuable articles cultivated; for there is always a great demand for them from the countries to the northward, where they do not thrive; and, as they are a bulky article, a vast saving is made by raising them near water carriage.

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Coco-nut palms.

Having assembled the most wealthy proprietors of coco-nut plantations, I obtained the following account of the manner in which these are formed.

Manner of rearing the *Cocos nucifera*, or coco-nut.

The soil reckoned fittest for the coco-nut is a mixture of mud with a very large proportion of sand; and such is generally found in greatest quantity near the banks of rivers, where the tide flows; and near inlets from the sea, by which the whole coast is very much intersected, although they have not a depth of water sufficient to admit ships.

The *Parum*, or garden, called *Oart* by the English, having been inclosed, between the 12th of May and the 11th of June, holes are dug throughout for the reception of the young palms. These pits are 1 *Varacolu* (28⅗ inches) square, and the same in depth. They are placed at the distance from each other, in all directions, of 12 *Varacolus*, or 28 feet 7¼ inches. In the bottom of each pit is then dug a small hole, in which is placed a young palm, or coco-nut tree, together with some ashes and salt. A little earth is then put round the roots, the young tree receives a little water, and some thorns are put round the pit. For the first three weeks water must be given three times a day; afterwards, until the garden is three years old, the trees must be watered once in two days. Once every month a little ashes must be put into each pit. Between the 12th of June and the 13th of July of the third year, a trench one cubit deep is dug round the young tree, at 1½ cubit from the root. The

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use of this is to confine the water near the tree during the rainy season. When this is over, between the 15th of October and the 13th of November, the whole garden is ploughed, and the trenches are levelled. Every year afterwards, before the rains commence, the trenches are renewed, and each tree is allowed a basket full of ashes. When the rainy season is over, the garden is ploughed again, and the trenches are filled. The cattle of the proprietor are always folded in the garden, and in the course of the year moved over the whole. The fold is covered with a roof. Between the 10th of February and the 10th of April the grass that has sprung up in the plantation is burned. The young plants are raised from the seed as follows. Between the 12th of June and the 13th of July, the nuts for seed are ripe. At that time a plot of ground is dug to the depth of three-fourths of a cubit. The nuts are placed on this, contiguous to each other, and sunk into the earth three fourths of their height, the eyes being placed uppermost. The plot is then sprinkled with ashes, and a bank of earth is formed round it to confine the water. The following day, if no rain falls, the plot must be watered. After the rainy season is over, it is watered every second day, and once a month gets some ashes. In three or four months the nuts begin to shoot. In three years the young plants are fit for being removed; and the nut even then adheres to some of them, although not to all. The gardens are not allowed to die out, and then formed anew, as in some places is the case with the coco-nut plantations; but, as one tree dies, a new one is set in its stead. The coco-nut palm, after having been transplanted, begins to bear in from thirteen to sixteen years. It continues in full vigour forty years, and lives for about thirty years more, but is then constantly on the decline.

Produce of the coco-nut palm.

When the trees begin to flower for the first time, a trial is made, by cutting a young flowering branch *(spatha)*, to ascertain whether it will be fit for producing nuts, or for producing palm-wine. If the cut bleed, it is fit for the latter purpose, and is then more

valuable than a tree whose *spatha*, when cut, continues dry, and which is fit only for producing nuts. The palms fit for wine are let to the *Tiars*, or *Shanars*, who extract the juice, and boil it down to *Jagory*, or distil it to extract arrack. In a good soil the trees yield juice all the year; but on a poor soil they are exhausted in six months. A clever workman can manage from 30 to 40 trees, and pays annually for each from 1 to ½ *Fanam*. Coco-nut *Jagory* is reckoned better than that of the *Brab (Borassus)*, and on an average sells at 2 *Fanams* the *Tolam*, or 3*s.* 8*d.* the hundred-weight. This account must be compared with that which was afterwards given by the *Tiars*, or men who manage the palms.

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The *Cudian*, or occupant of the garden, cultivates the soil, and collects the nuts. Each tree produces five or six bunches, and each bunch seven or eight full grown nuts, or fourteen or fifteen of an inferior size, and of very little value. A little bad *Coir* (or cordage) is made from the husks of the nuts that are used green in the country. A few of the nuts are exported with the husk on; but in general they are sent to the north inclosed in the shell only. They are bought up by the *Moplay* merchants, who make advances from six to three months before the time of delivery. The price advanced is from two to three *Fanams* for every hundred nuts which the garden is expected to produce. If the occupant be not necessitated to take advances, he will be able to sell his nuts at from 4 to 4½ *Fanams* the hundred. If the produce of the garden be greater than that for which advances have been made, the occupant sells the overplus as he pleases; but, if he has been too sanguine in his expectations, and has received advances for more than he can deliver, he must pay for the deficiency, not at the rate of the advance, but at the rate of the market. A proprietor, who lets his garden, gets from 8 to 15 *Fanams* rent *(Patom)* for every hundred trees; and the occupant *(Cudian)* pays the land-tax, which is half a *Fanam* for every tree that is in full bearing: old and young trees are exempted, as unproductive. Mr. Drummond says, that in

Money advanced by merchants for the nuts.

Rent and produce.

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fact not above ten trees in a hundred pay the tax; while all the others, under pretence of being aged or young, are excused. He also alleges, that the trees are much more productive than the proprietors acknowledge, and give annually from 80 to 100 nuts. Monkeys and mice (squirrels?) are very destructive in the plantations of *Shetuwai*.

Fruit and kitchen gardens.

Among the coco-nut trees are raised plantains, and a variety of kitchen stuffs, called here *Caigari*, on which no tax is exacted. There are also planted many fruit trees, especially *Jacks (Artocarpus integrifolia)* and *Mangoes (Mangifera)*. The fruit of the former enters largely into the food of the natives, and has always a ready sale; so that, the tree being valuable, a tax is levied on it. The *Mangoes* are so numerous, that they are not saleable, and no tax is demanded for them.

Betel-leaf.

In *Malabar* there are no *Betel-leaf* gardens; but every person who has a garden plants a few vines of the *Betel (Piper Betle)*, and allows them to climb up the *Mango* trees, or any others that are most convenient. Once in three years the vines are renewed. Although in most parts of India the *Betel-leaf* is an object of taxation that produces a considerable and fair revenue, in *Malabar* no tax has been imposed on it; but this seems by no means to have been of service to the people; as very large quantities of the leaf are imported from *Coimbetore*, where a heavy tax is levied, and no drawback allowed.

The quantity of *Betel-nut* and pepper that is raised on the sandy levels near the sea is so small, that for the present I shall defer saying any thing concerning these valuable productions.

Tenures by which plantations are held.

The tenures by which plantations are held differ considerably from those by which the *Paddum, Dhanmurry*, or low land, has been granted by the *Namburis*. When a man wishes to plant a space of *Parum* land, he obtains from the landlord a lease called *Cuey Canum*, which is granted for a time sufficient to allow him to have at least two years full produce from the garden, and often much longer.

If the lease be for any considerable time, he in general pays some money in advance, which is called the *Canum*, or mortgage. When the term of the lease has expired, the landlord may reassume the plantation, by paying up the mortgage, and liquidating the amount of all the charges incurred by the *Canumcar*, or mortgagee, for buildings, wells, fences, &c. together with the value of the trees brought to maturity. The amount of these sums due to the mortgagee by the landlord, who wishes to reassume a plantation, is generally determined by arbitration. When the lease has expired, and the sum due to the (*Cuey Canumcar*) mortgagee has been determined, the landlord either reassumes the garden by liquidating the claims of the planter, or he grants it to the planter on proper *Canum*, or full mortgage. In this case, the *Patom*, or neat rent of the garden, having been ascertained to the satisfaction of both parties, the mortgagee agrees to pay the amount to the landlord, after deducting the land-tax, and the interest of his claims; which are then consolidated into one sum, called *Canum*, or mortgage.

Produce of a Coco-nut tree.

In Mr. Smee's valuable survey, the trees producing less than ten nuts are considered as altogether unproductive, and therefore it is proposed to exempt them entirely from taxes. Taking the average of all the trees yielding above ten nuts, the produce of each is stated by him to be 33 nuts. I confess, that Mr. Smee's opportunities of information were in many respects superior to mine, and his assiduity could not be exceeded; yet I suspect, that he has very much under-rated the produce, and am induced to do so both from the confession of the natives, and from the appearance of the bunches on the trees. His inquiries were attended with one great disadvantage; namely, that they were avowedly made with a view to assessment; and of course all means possible were taken to conceal the truth, and to diminish the value of the produce.

Assessment by *Arshid-Beg-Khán*.

When *Arshid-Beg-Khán*, by the orders of *Hyder*, imposed a tax on the plantations of *Malabar*, he formed an estimate of their produce; and then, having calculated the average amount of the

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produce of a tree, he imposed upon each what he considered as a fair tax. The amount of this on every coco-nut palm was half a *Fanam*. Old and young trees were exempted, which has given rise to immense frauds on government. The young trees, of course, ought in justice to be exempted, because they do not produce any fruit; but old trees ought either to be paid for, or to be cut, there being no possible means of ascertaining what trees are really productive enough to afford the tax. If the rate be found too heavy, it would be much better for government to lower it, and to exact the tax for every tree above a certain age that a person chose to have in his plantation. Mr. Smee thinks the tax on coco-nuts, imposed by *Arshid-Beg-Khán*, too high, and has proposed to reduce it to one third of a *Fanam*. According to his own estimate, the average produce of a tree is worth $1\frac{144}{1000}$ *Fanam*: now above the *Ghats* the cultivators of gardens pay one half of the produce, in a less favourable soil and climate, and yet are reckoned to possess by far the most valuable property that is in the country, and new plantations are forming in every part that will admit of them. I do not see, therefore, why the people of *Malabar* should cry out against the tax in the manner they do: and I perfectly agree with Mr. Smee in thinking that the tax proposed by him is extremely moderate. Say, that a man has a garden containing 40 trees, rateable according to Mr. Smee's plan of excluding all those which do not produce more than ten nuts; the produce of these, at 33 nuts a tree, will be 1320; which, according to Mr. Smee, are worth at the rate of 35 *Fanams* a thousand: the produce is therefore worth

		Fanams 47 10
Deduct revenue - -	13 13⅓	
Annual charges - -	8 0	
		21 13⅓
Clear profit - - -		25 36⅔

Out of which is to be deducted the interest of the money employed

in making the garden. But this is not the whole that the proprietor of the garden receives. In these gardens he cultivates plantain trees, and all kinds of kitchen stuffs, free from rent; and, what is still more, he has the whole produce of the trees reckoned not productive. These, in a garden containing 40 productive trees, may safely be taken at 25 trees, each producing six nuts, which amount to 150, in all worth $5\frac{1}{4}$ *Fanams*: so that the proprietor's share, after deducting the expense of cultivation, amounts to nearly three fifths of the gross produce.

The *Negadi* on plantations a bad tax.

This whole system of finance, however, appears to me unfavourable to the revenue, and injurious to the morals of the people. It can only be exacted, either by suffering immense frauds, or by constant surveys carried on at a great expense; while all the officers of revenue, and all the proprietors will be constantly exposed to temptations that are scarcely to be resisted, owing to the difficulty attending their detection. The quantity of the produce of these plantations that is consumed in this country, except that used for distillation, is inconsiderable, and in a fiscal view may be altogether neglected; and that which is exported, being a bulky article, may, by means of an excise, be made a source of revenue to any extent, compatible with leaving such a profit to the cultivators, as to make it worth their while to raise the commodity. I understand, that the *Rájás* of *Travancore* have adopted a plan somewhat analogous with their pepper, which in the plantations of *Malabar* is one of the grand articles of produce. In their dominions, they are the only merchants who are permitted to deal with foreigners in that article. They take from the cultivator the whole pepper produced in their country, at a fixed price, and dispose of it in the best manner that they can. The Company have adopted in *Bengal* a similar management with respect to salt and opium, and even advance money to carry on the manufacture and cultivation of these articles of commerce; and no doubt the same might be done with the pepper, coco-nut, and *Betel* of *Malabar*. I am

New tax proposed in its stead.

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inclined, however, to give the preference to duties levied on the export, and checked by an excise; it being dangerous, wherever it can be avoided, for the sovereign to act as a merchant. My opinion is, therefore, that all *Negadi*, or taxes on plantations, should be done away in *Malabar;* and, in place of them, either a tax should be imposed on the exportation of their produce; or the Company should agree to receive all that is brought to the sea coast, or frontier, at such a price as would allow them a profit, and the cultivator a reasonable encouragement. The latter plan, of course, implies an absolute monopoly; and the former, in order to avoid the frauds incident to duties levied by custom-houses, requires the establishment of an excise. Either plan, however, seems to me greatly preferable to that system of falsehood and deceit which is at present employed.

Value of coco-nut plantations.

In order to judge of the value of ground cultivated with coconuts, let us suppose a plantation, as described by the proprietors of 100 trees, which will occupy 81,940 square feet. Among these the taxable trees, according to the general proportion of the country, as established by the survey, will be 34 trees, producing 1122 coconuts; to which we may safely add 128, for those produced by trees not taxable. The produce is then worth to the cultivator 43½ *Fanams*, besides plantains, kitchen-stuff, coco-nut leaves, &c. &c. and the tax paid at Mr. Smee's rate would be 11½ *Fanams.* Reducing these measures to the English standard, the produce of an acre will be 12*s.* 8½*d.*, and the tax will be 3*s.* 3½*d.*, taking the *Fanam* at 3½ for the *Rupee.*

Mortgages.

I have already mentioned how far the tenure by mortgage *(Canum)* is prejudicial to improvement. In order to remedy this in some measure, Mr. Drummond compels all landlords, when sued for the payment of a mortgage, either to pay the money or to sell the estate. This seems to be contrary to the customary law of the country, but will no doubt be advantageous.

At *Manapuram* a slave, when 30 years old, costs about 100 *Fanams,*

or 2*l.* 14*s.* 7*d.*; with a wife he costs double. Children sell at from 15 to 40 *Fanams*, or from 8*s.* 2¼*d.* to 21*s.* 10*d.* A working slave gets daily three-tenths of a *Poray* of rough rice, or about 36½ bushels a year. He also gets annually 1 *Fanam* for oil, and 1¼ *Fanam* for cloth, which is just sufficient to wrap round his waist. If he be active, he gets cloth worth 2 *Fanams*, and at harvest time from 5 to 6 *Porays* of rough rice. Old people and children get from one to two-thirds of the above allowance, according to the work which they can perform.

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Dec. 10, 11. Value of slaves, and allowance given them.

12th *December*.—I went with Mr. Drummond to his house at *Chowgaut*, which, for what reason I do not know, is called by the natives *Shavacadu*, or *deadly forest*. The town is a small place, chiefly inhabited by *Moplays* and *Nazarens*, and is the sea-port belonging to the *Nazareny* town named *Cunnung Colung Curry*.

Dec. 12. *Chowgaut*.

On the way I examined a machine, by which the natives remove superfluous water from their rice-grounds, when there is no level, by which these can be drained. It is called *Chakram*, or the wheel, and is represented in Plate XX. Figure 51. The arms of the wheel are 3 feet long, and 14 inches broad, and are confined in a case consisting of planks, and supported by four feet (a b, a b,). That part of the case (b b) which is farthest from the center of the wheel, being placed towards the bank inclosing the field; so that the upper part of the segment of a circle (c c c), that lines the bottom of the case, is on a level with the top of the bank; while all the lower part of the case is immersed in the water; it is evident, that each arm of the wheel moving from a to c will force out, by the opening b c, the volume of water contained between the lines a d, d c, and the segment of the circle c c c. The wheel is moved by six men, who support themselves on slight *Bamboo* stages, and push the upper arms of the wheel with their feet. Two sets relieve each other, and three *Chakrams*, or 36 men, will, in the course of a day, clear ten *Porays* of three feet of water. The ten

Chakram, or wheel for raising water.

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Porays are 1¼ acre, and the quantity of water thrown out is 174,300 cubical feet.

Dec. 12. *Nazarens.*

The *Nazareny* priest *(Papa)* of *Chowgaut* waited on us, to inform me, that my wishes for procuring the history of the sect in India had been communicated to the metropolitan, who desired him to say, that a copy of the chronicle would be sent to me through Mr. Drummond. Unfortunately, I have not received any account from that quarter. The *Papa* denied that the *Nazarens* give liberty to such of their slaves as are converted; probably thinking that the conversion might be attributed to this circumstance, more than to the apostolical virtues of his brethren. He also maintained, that the sect was rapidly increasing in numbers, and daily gaining proselytes. In these points he differed in his account from the *Papa* whom I had before seen.

Customs of the *Nairs* in the south of *Malabar.*

Having assembled the most respectable of the *Nairs* in this neighbourhood, they gave me the following account of their customs.

Divisions.

The *Nair*, or in the plural the *Naimar*, are the pure *Súdras* of *Malayala*, and all pretend to be born soldiers; but they are of various ranks and professions. The highest in rank are the *Kirüm*, or *Kirit Nairs.* On all public occasions these act as cooks, which among *Hindus* is a sure mark of transcendent rank; for every person can eat the food prepared by a person of higher birth than himself. In all disputes among the inferior orders, an assembly of four *Kirüms*, with some of the lower orders, endeavour to adjust the business. If they cannot accomplish this good end, the matter ought to be referred to the *Namburis*. The *Kirit Naimar* support themselves by agriculture, or by acting as officers of government, or accomptants. They never marry a woman of any of the lower *Nairs*, except those of the *Súdras*, or *Charnadu*, and these very rarely. The second rank of the *Nairs* are called *Súdra*, although the whole are allowed, and acknowledge themselves to be of pure

Súdrá origin. These *Súdra Nairs* are farmers, officers of government, and accomptants. They never marry any girls but those of their own rank; but their women may cohabit with any of the low people, without losing cast, or their children being disgraced. The third rank of *Nairs* are the *Charnadu*, who follow the same professions with their superiors. The fourth are the *Villium*, or *Villiit Naimar*, who carry the palanquins of the *Namburis*, of the *Rájás*, and of the persons on whom these chiefs have bestowed the privilege of using this kind of conveyance: they are also farmers. The fifth rank of *Nairs* are the *Wattacata*, or oil-makers, who are likewise farmers. The sixth rank, called *Atticourchis*, are rather a low class of people. When a *Nair* dies, his relations, as usual among the *Hindus*, are for fifteen days considered unclean, and no one approaches them but the *Attacourchis*, who come on the fifth, tenth, and fifteenth days, and purify them by pouring over their heads a mixture of water, milk, and cow's urine: the *Attacourchis* are also cultivators. The seventh in rank are the *Wullacutra*, who are properly barbers; but some of these also cultivate the ground. The eighth rank are the *Wullaterata*, or washermen, of whom a few are farmers. The ninth rank is formed of *Tunar Naimar*, or tailors. The tenth are the *Andora*, or pot-makers. The eleventh and lowest rank are the *Taragon*, or weavers; and their title to be considered as *Naimar* is doubtful; even a pot-maker is obliged to wash his head, and purify himself by prayer, if he be touched by a weaver.

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The men of the three higher classes are allowed to eat in company; but their women, and both sexes of all the lower ranks, must eat only with those of their own rank.

Nambirs.

Among the two highest classes are certain persons of a superior dignity, called *Nambirs*. These were originally the head men of *Désams*, or villages, who received this title from an assembly of *Namburis* and *Tamburans*, or of priests and princes; but all the children of *Nambirs* sisters are called by that title, and are considered as of a rank higher than common.

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Pride and barbarity.

The whole of these *Nairs* formed the militia of *Malayala*, directed by the *Namburis*, and governed by the *Rájás*. Their chief delight is in arms; but they are more inclined to use them for assassination, or surprise, than in the open field. Their submission to their superiors was great; but they exacted deference from those under them with a cruelty, and arrogance, rarely practised, but among *Hindus* in their state of independence. A *Nair* was expected instantly to cut down a *Tiar*, or *Mucua*, who presumed to defile him by touching his person; and a similar fate awaited a slave, who did not turn out of the road as a *Nair* passed.

Priests.

The *Nairs* have no *Puróhitas;* but at all their ceremonies the *Elleadu*, or lowest of the *Namburis*, attend for charity *(Dharma)*, although on such occasions they do not read prayers *(Mantrams)* nor portions of scripture *(Sástrams)*. The *Namburi Bráhmans* are the *Putteris* or *Gurus* of the *Naimar*, and bestow on them holy water, and ashes, and receive their *Dána*, and other kinds of charity.

Knowledge and doctrines.

The proper deity of the *Naimar* cast is *Vishnu;* but they wear on their foreheads the mark of *Siva.* They offer frequent bloody sacrifices to *Marima*, and the other *Saktis*, in whose temples the *Namburis* disdain not to act as priests *(Pújaris);* but they perform no part of the sacrifices, and decline being present at the shedding of blood. The *Nairs* can very generally read and write. They never presume to read portions of the writings held sacred *(Sástrams);* but have several legends in the vulgar language. They burn the dead, and suppose that good men after death go to heaven, while bad men will suffer transmigration. Those, who have been charitable, that is to say, have given money to religious mendicants, will be born men; while those, who have neglected this greatest of *Hindu* virtues, will be born as lower animals. The proper road to heaven they describe as follows. The votary must go to *Kási*, and then perform the ceremony in commemoration of his ancestors at *Gya.* He is then to take up some water from the *Bhágírathi*, or

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Ganges, and pour it on the image of *Siva* at *Ramèswara*. After this he must visit the principal *Kshètras* and *Tirthas*, or places of pilgrimage, such as *Jagarnat*, and *Tripathi*, and there he must wash in the *Puscarunny*, or pool of water that sprung forth at the actual presence of the god. He must always speak truth, and give much charity to learned and poor *Bráhmans*. He must have no carnal knowledge of any woman but his wife, which with a *Nair* confines him to a total abstinence from the sex. And lastly, in order to obtain a place in heaven, the votary must very frequently fast and pray.

Sexual intercourse.

The *Nairs* marry before they are ten years of age, in order that the girl may not be deflowered by the regular operations of nature; but the husband never afterwards cohabits with his wife. Such a circumstance, indeed, would be considered as very indecent. He allows her oil, clothing, ornaments, and food; but she lives in her mother's house, or, after her parents' death, with her brothers, and cohabits with any person that she chooses of an equal or higher rank than her own. If detected in bestowing her favours on any low man, she becomes an outcast. It is no kind of reflection on a woman's character to say, that she has formed the closest intimacy with many persons; on the contrary, the *Nair* women are proud of reckoning among their favoured lovers many *Bráhmans*, *Rájás*, or other persons of high birth: it would not appear, however, that this want of restraint has been injurious to population. When a lover receives admission into a house, he commonly gives his mistress some ornaments, and her mother a piece of cloth; but these presents are never of such value, as to give room for supposing that the women bestow their favours from mercenary motives. To this extraordinary manner of conducting the intercourse between the sexes in *Malayala*, may perhaps be attributed the total want, among its inhabitants, of that penurious disposition so common among other *Hindus*. All the young people vie with each other, who shall look best, and who shall secure the greatest share of

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favour from the other sex; and an extraordinary thoughtlessness concerning the future means of subsistence is very prevalent. A *Nair* man, who is detected in fornication with a *Shanar* woman, is put to death, and the woman is sold to the *Moplays*. If he have connection with a slave girl, both are put to death; a most shocking injustice to the female, who, in case of refusal to her lord, would be subject to all the violence of an enraged and despised master.

Succession.

In consequence of this strange manner of propagating the species, no *Nair* knows his father; and every man looks upon his sisters' children as his heirs. He, indeed, looks upon them with the same fondness that fathers in other parts of the world have for their own children; and he would be considered as an unnatural monster, were he to show such signs of grief at the death of a child, which, from long cohabitation and love with its mother, he might suppose to be his own, as he did at the death of a child of his sister. A man's mother manages his family; and after her death his eldest sister assumes the direction. Brothers almost always live under the same roof; but, if one of the family separates from the rest, he is always accompanied by his favourite sister. Even cousins, to the most remote degree of kindred, in the female line, generally live together in great harmony; for in this part of the country love, jealousy, or disgust, never can disturb the peace of a *Nair* family. A man's moveable property, after his death, is divided equally among the sons and daughters of all his sisters. His landed estate is managed by the eldest male of the family; but each individual has a right to a share of the income. In case of the eldest male being unable, from infirmity or incapacity, to manage the affairs of the family, the next in rank does it in the name of his senior.

Diet.

The *Naimar* are excessively addicted to intoxicating liquors, and are permitted to eat venison, goats, fowls, and fish.

Dec. 13. Face of the country.

13th *December*.—Having taken leave of my kind friends, Messrs. Waddel and Drummond, I went about twelve miles to *Valiencodu*,

which in our maps is called *Billiancotta.* The road passes over sandy downs near the sea, and on each side has a row of *Banyan* trees *(Ficus bengalensis);* but in such situations they do not thrive. To the right were large plantations of coco-nut trees and rice fields. Toward the sea were scattered a few groves of palms. The appearance of the country is very inferior to that of the inland parts of the province. CHAPTER XI. Dec. 13.

Valiencodu is a small open village, containing about 45 houses, and a few shops. Near it is a ruinous fort. It is situated in a district called *Vaneri Nadu,* which belonged to the *Peneturu Rájá,* one of those who were dependent on the *Tamuri,* and who now receives from the Company a fifth part of the revenue. Being a man of some abilities, he is entrusted, under the authority of the collector, with the management of the revenue. I was visited by a relation of his, called the *Manacalatu Rájá,* who came with a *Namburi,* and eight or ten *Nairs,* following his palanquin. He was a poor looking old man, stupified with drink. He said, that one-half of his own country, and that of his kinsman, had been situated in the *Cochi Rájá's* dominions, and that they had been entirely stript of this share ever since they fled to *Travancore* to avoid *Tippoo's* bigoted persecution. He afterwards began to talk as if the Company had taken from him the remainder; but he became sensible of his error, on being asked what he possessed when the Company conquered *Malabar.* *Peneturu Rájá.*

The province of *Malabar* has no very large temples; and even those which are dedicated to the great gods are of very miserable structure. Those dedicated to the *Saktis* are few in number, and are not ornamented with images of potter's work, like those of *Coimbetore.* There are no buildings for the accommodation of travellers. Near the sea-coast are many *Meshids,* or mosques, built by the *Moplays.* These are poor edifices with pent roofs. Religious buildings of *Malabar.*

The *Niadis* are an outcast tribe common in *Malabar,* but not numerous. They are reckoned so very impure, that even a slave will Customs of the *Niadis.*

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not touch them. They speak a very bad dialect, and have acquired a prodigious strength of voice, by being constantly necessitated to bawl aloud to those with whom they wish to speak. They absolutely refuse to perform any kind of labour; and almost the only means that they employ to procure a subsistence is by watching the crops, to drive away wild hogs and birds. Hunters also employ them to rouse game; and the *Achumars*, who hunt by profession, give the *Niadis* one fourth part of what they kill. They gather a few wild roots, but can neither catch fish, nor any kind of game. They sometimes procure a tortoise, and are able, by means of hooks, to kill a crocodile. Both of these amphibious animals they reckon delicious food. All these resources, however, are very inadequate to their support, and they subsist chiefly by begging. They have scarcely any clothing, and every thing about them discloses want and misery. They have some wretched huts built under trees in remote places; but they generally wander about in companies of ten or twelve persons, keeping at a little distance from the roads; and when they see any passenger, they set up a howl, like so many hungry dogs. Those who are moved by compassion lay down what they are inclined to bestow, and go away. The *Niadis* then put what has been left for them in the baskets which they always carry about. The *Niadis* worship a female deity called *Maladeiva*, and sacrifice fowls to her in March. When a person dies, all those in the neighbourhood assemble and bury the body. They have no marriage ceremony; but one man and one woman always cohabit together; and among them infidelity, they say, is utterly unknown.

A wretched tribe of this kind, buffeted and abused by every one, and subsisting on the labour of the industrious, is a disgrace to any country; and both compassion and justice seem to require, that they shouldbe compelled to gain a livelihood by honest industry, and be elevated somewhat more nearly to the rank of men. Perhaps *Moravian* missionaries might be employed with great success, and at little expense, in civilising and rendering industrious the rude

and ignorant tribes that frequent the woods and hills of the peninsula of India? In the execution of such a plan, it would be necessary to transport the *Niadis* to some country east from *Malabar*, in order to remove them from the contempt in which they will always be held by the higher ranks of that country.

Customs of the *Tiars*, or *Shanars*.

The *Shanar*, who in the dialect of *Malayala* are properly called *Tiar*, are in *Malabar* a very numerous tribe, and a stout, handsome, industrious race. They do not pretend to be of *Súdra* origin, and acknowledge themselves to be of the impure race called *Panchamas;* but still they retain all the pride of cast; and a *Tiati*, or female of this cast, although reduced to prostitution, has been known to refuse going into a gentleman's palanquin, because the bearers were *Mucuar*, or fishermen, a still lower class of people. All *Tiars* can eat together, and intermarry. The proper duty of the cast is to extract the juice from palm trees, to boil it down to *Jagory*, and to distil it into spirituous liquors; but they are also very diligent as cultivators, porters, and cutters of firewood. They have no hereditary chiefs, and all disputes among them are referred to the *Tamburan*, or officers of government. In every *Désam* certain *Tiars* were formerly appointed to a low office, called *Tondan*, which gave them powers similar to those enjoyed by the *Totis* above the *Ghats.* At present, the duties of these officers are confined to an attendance at marriages and funerals, where they receive some trifling dues. The *Tiars* have certain families among them, who are called *Panikin.* These can read and write, and instruct the laity, so far as to enable some of them to keep accompts. They are the only *Gurus* received by this cast; and are supposed to dedicate their time to prayer and religious duties, on which account they receive charity. The *Panikin* intermarry with the laity. The deities of the cast are a male named *Mundien*, and a female named *Bagawutty.* On holy days these are represented by two rude stones, taken up for the occasion, and, during the ceremony, placed under a shed; but afterwards thrown away, or neglected. At these ceremonies a fowl is offered up as a

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sacrifice, and a *Nair* is employed to kill it before the idols. The same *Nair* acts as *Pújári* for the god *Mundien*, adorns the stone with flowers, anoints it with oil, and presents it with fruit. A *Namburi* is employed to be *Pújári* to *Bagawutty*, and this is the only occasion on which the *Tiars* give that class of men any employment. The *Panikins* attend at marriages, but do not read any thing on these occasions. The *Tiars* seem to be entirely ignorant of a state of existence after death. Some of them burn, and some of them bury the dead. They are permitted to eat swine, goats, fowls, and fish; and have no objection to eat animals that have died a natural death. They may also drink distilled liquors, but not palm wine. In fact, they are not so much addicted to intoxication as the *Nairs*. In wealthy families, each man takes a wife; but this being considered as expensive, in poor families the brothers marry one wife in common, and sleep with her by turns. If either of the brothers becomes discontented, he may marry another woman. The whole family lives in the same house, even should it contain two women; and it is reckoned a proof of a very bad temper, where two brothers live in separate houses. It must be observed, that in *Malabar* a family of children are not reckoned burthensome; so that the *Tiars* are induced to adopt this uncommon kind of wedlock, merely to save the trifling expense of several marriages, the whole amount of one of which is as follows: four *Fanams* (2*s.*) given to the girl's parents, a piece of cloth given to herself, and a feast given to the relations. Many of the women are thus unprovided with husbands, a thing very uncommon in India; and, their remarkable beauty exposing them to much temptation, a great many *Tiatis* in the seaport towns are reduced to prostitution. Women continue to be marriageable after the age of puberty, and after the death of a former husband. Adulteresses are flogged, but not divorced, unless the crime has been committed with a man of another cast. A *Namburi*, who condescended to commit fornication with a *Tiati*, would formerly have been deprived of his eyes, and the girl and all her

relations would either have been put to death, or sold as slaves to the *Moplays*, who sent them beyond the sea; a banishment dreadful to every *Hindu*, and still more so to a native of *Malabar*, who is more attached to his native spot than any other person that I know. CHAPTER XI. Dec. 13.

Coco-nut plantations.

Having examined the *Tiars* concerning their customs, I then questioned them about the coco-nut plantations; and the account which they gave ought to be compared with that which was given at *Shetuwai* by the proprietors. The *Tiars* say, that there is no distinction between palms that will produce juice, and those that will not; the trees that would produce a good crop of nuts will produce much juice, and sometimes continue to bleed the whole year. Poor trees give juice in the rainy season only, and even then in small quantity. They agree with the farmers in allowing, that trees giving juice are more profitable than those producing nuts; but the extraction of this liquor is apt to injure the palm, and, if continued for three years, will kill it. The rent paid by *Tiars* here for twelve good coco-nut trees is one *Fanam* for twelve months in the year. That paid for bad trees is at the same monthly rate, but is only paid for six months in the year. The proper management of a coco-nut palm requires, that it should be allowed to bear fruit two years; after which, toddy should be extracted from it for eighteen months, and never afterwards.

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Callu, or Toddy.

When the *spadix*, or flowering branch, is half shot, and the *spatha*, or covering of the flowers, has not yet opened, the *Tiar* cuts off its point, binds the stump round with a leaf, and beats the remaining part of the *spadix* with a small stick. For fifteen days this operation is repeated, a thin slice being daily removed. The stump then begins to bleed, and a pot is fixed under it to receive the juice, or *Callu*, which the English call *Toddy*. Every day afterwards, a thin slice is taken from the surface of the stump, which is then secured by a ligature; but after it has begun to bleed, the beating is omitted. The juice is removed once a day. If it be intended for drinking,

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nothing is put into the pot, and it will keep for three days. On the fourth day it becomes sour; and what has not been sold to drink while fermenting, is distilled into arrack: the still is like that described at *Malur*, but the head is made of tin. The liquor is distilled without addition, and the spirit is not rectified. In the pots intended to receive juice that is to be boiled to *Jagory*, a little quick lime must be put, to prevent fermentation; and the juice must be boiled on the same day that it is taken from the tree. Twelve trees daily fill with juice a large pot, which, when boiled down, gives six balls of *Jagory*, each worth one *Caas;* that is, 180 *Caas*, or 5 *Fanams*, a month for the produce of twelve trees; out of which the *Tiar* pays one *Fanam* to the proprietor of the trees, and has four *Fanams* for his trouble. The *Tiars* say, that a man cannot manage more than twelve trees; the cultivators allege, that an active man can manage four times that number.

Produce of a coco-nut palm.

The coco-nut palm, during the season that it is productive, pushes out a new *spadix* once a month; and after each *spadix* begins to bleed, it continues to produce freely for a month, by which time another is ready to supply its place. The old *spadix* continues to give a little juice for another month, after which it withers; so that there are never more than two pots to one tree. Each of these *spadices*, if allowed to grow, would produce a bunch of nuts, containing from two to twenty. When the nuts are very numerous, they grow to an inconsiderable size, and are of little value; and from seven to ten good nuts may be considered as the average produce of each bunch. Trees in a favourable soil produce twelve bunches in the year; ordinary trees give only six bunches. From this it does not appear to me, that the gross average produce can be possibly calculated at less than fifty nuts a tree.

CHAPTER XII.

ROUTE FROM VALIENCODU TO CODUWULLY, THROUGH PANYANI AND THE CENTRAL PARTS OF MALABAR.

CHAPTER XII.

Dec. 14.

Ferries, and boats of *Malabar*.

DECEMBER 14th.—I went a short stage to *Panyáni.* Soon after leaving *Valiencodu,* I crossed the mouth of a small river, which, by the influx of salt water as it approaches the sea, is extended to a great width. I was ferried over it by means of two canoes lashed together, which forms a very safe conveyance for baggage, or foot passengers, but is not adapted for cattle, the latter being forced to swim. Orders have been issued by the commissioners to construct proper stages on canoes at every ferry; so that cattle, and even artillery, may be transported with safety. The canoes in this part of *Malabar* are among the best and handsomest that I have ever seen.

Face of the country.

On the north side of the river is some level marshy ground, into which the tide is received, and salt is formed by the evaporation of the water by the heat of the sun. Between this and *Panyáni* the country is very beautiful, and thickly covered with groves of coco-nut trees, which are separated by rice-fields that are now covered with the second crop. This, however, by no means looks thriving. On the mere sand of the sea-shore may be here seen flourishing the coco-nut palm. It is said, that in such situations it produces fruit for ten years only; but that is of little consequence; as it seems to be reared at a very trifling expense, and is afterwards left entirely to nature.

Panyáni, or *Punany Wacul.*

Panyáni is also called by the natives *Punany Wacul,* and contains 500 houses belonging to traders, with above forty mosques, and at

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least 1000 huts inhabited by the lower orders of people. It is very irregularly built; but many of the houses are two stories high, and seem to be very comfortable dwellings. They are built of stone, and thatched with coco-nut leaves. The huts are inhabited by boatmen and fishermen, who were formerly *Mucuas*, a low cast of *Hindus;* but now they have all embraced the faith of *Mahomet.* All the mosques are thatched, and their principal entrance is at the east end, where the roof terminates abruptly in fanciful mouldings, and carved work, that by the natives are considered as ornamental. The town is scattered over a sandy plain, on the south side of a river, which descends from *Ani-malaya*, and enters the sea by a very wide channel. The mouth, however, is shut by a bar, which admits boats only to enter.

Patemar boats.

The trading boats are called *Patemars*, and on an average carry 50,000 coco-nuts, or 1000 *Mudies* of rice, equal to 500 *Bengal* bags. There are many *Patemars* larger, but these seldom frequent this port.

Commerce.

About fifty years ago the *Moplays* of this place were very rich, and possessed vessels that sailed to *Surat*, *Mocha*, Madras, and Bengal; but the oppression of *Tippoo* has reduced them to great poverty, and most of them are now under the necessity of acting as agents to *Mousa*, a Mussulman merchant of *Tellichery*. They have, however, a few small boats, that go to *Tellichery* and *Calicut* for supplies of European and Bengal goods. The port is also frequented by vessels *(Patemars)* from different places on the coast. Those from Bombay bring wheat, *Meti*, or fenugreek, the pulses called *Wulindu*, *Pyru*, and *Avaray*, sugar-cane, *Jagory*, and salt; they take back *Teak-wood* and coco-nuts. From *Rája-puram*, a town in the *Marattah* part of *Kankána*, vessels *(Patemars)* bring the same kinds of grain that are brought from Bombay, and also sugar-cane, *Jagory*, and *Cut*, or *Terra Japonica:* they take away the same returns. From *Gheria*, in the same country, are brought much *Jagory* and *Cut*, and coco-nuts are taken in return. Goa sends the same kind

of goods that are brought from Bombay. Much rice is exported from hence to the northern parts of the province of *Malabar*. There is no trade between *Panyáni* and the *Maldives*. From *Cochin* are brought canoes, spices, sugar, sugar-cane, *Jagory*, wheat, and mustard-seed; and the returns are iron smelted in the interior parts of the country, and rice both rough and freed from the husk. From *Anjengo* are brought cotton cloths wrought there, and coco-nuts. No account is kept here of the arrivals or departures of vessels *(Patemars)*; but in the custom-house books every article exported or imported ought to be entered. The returns of these, which I expected from Mr. Drummond the collector, have not reached me.

Moplays.

Panyáni is the residence of the *Tangul*, or chief priest of the *Moplays*, who says that he is descended from *Ali* and *Fatima*, the daughter of *Mahomet*. Both the *Tangul*, and his sister's son, who according to the custom of *Malayala* is considered as the heir to this hereditary dignity, are very stout, handsome, fair men, but from their countenances would not be suspected to belong to the priesthood. The nephew is a middle-aged man, and at the jollity of a marriage, a few days ago, exerted himself so much, that he burst a blood vessel in his lungs, and could not venture to speak. The *Tangul* was remarkably civil, and, when I returned his visit in the evening, received me with great hospitality, and requested me to eat with him; a thing very uncommon with the natives of India. He promised to send me an account of the arrival of his sect in this country, and has kept his promise. It is written in *Arabic*, and is said to be the original from which *Ferishta* translated the account of this colony that is given in his works. The *Tangul* says, that his people are called *Moplaymar* in *Malayala*; and *Lubbaymar* at Madras; but among themselves they acknowledge no other name than that of Mussulmans. Being of Arabic extraction, they look upon themselves as of a more honourable birth than the Tartar Mussulmans from the north of India, who of course are of the

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contrary opinion. The Arabs settled in India soon after the promulgation of the faith of Mahomet, and have made very numerous converts; but in many families of distinction the Arab blood seems as yet uncontaminated. They use a written character peculiar to themselves, and totally different from the present Arabic. The language of their original country is known to few of them, except their priests; and they have never acquired the language of the country in which they live so as to speak it in decent purity, but use a jargon as corrupted as what Europeans in general speak for *Hindustany*. The *Moplays* of *Malabar* are both traders and farmers; the *Lubbaymars* of Madras confine themselves entirely to the former profession. As traders, they are remarkably quiet, industrious people; but those who in the interior parts of *Malabar* have become farmers, having been encouraged by *Tippoo* in a most licentious attack on the lives, persons, and property of the *Hindus*, are fierce, blood-thirsty, bigoted ruffians. In religious matters, the *Tangul* is the head of this sect, and his office is hereditary. Mosques are very numerous. In each presides an *Imám*, or *Mulla*, appointed by the *Tangul*. He usually bestows the office on the sister's son, or heir of the person who last enjoyed the office, unless he should happen to be disqualified by ignorance, or immorality. The *Tangul* has some lands, for which he pays no tax; but the inferior clergy are supported entirely by the contributions of their followers. The late *Sultán*, who wished to make innovations in every thing, did not respect this descendant of his prophet; but appointed another head for the priests of his faith in *Malabar*. This person, called *Arabi Tangul*, resides at *Panyáni*; but his followers are now reduced to five or six families, and he has lost one half of the property that *Tippoo* bestowed on his new favourite.

Dec. 15. Face of the country.

15th *December*.—I went a long stage to *Adanad*. The country between *Panyáni* and *Ternavay*, although higher than the sea-shore, is level; and consists entirely of rice-grounds, which annually produce only one crop, and of which a great part seems to be waste.

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Panyáni river.

On leaving the sea-coast, the number of trees, especially of coco-nut palms, decreases fast. I crossed the *Panyáni* river at *Ternavay*, where there is a small temple, but no town. The channel of the river is very wide; but at this season most of it is occupied by dry sands. The water is clear, and the stream gentle; the fords are, however, bad, owing to the depth of water, which in most parts is four feet, and no where less than three. Cattle, in crossing it, must therefore be unloaded, and the baggage carried to the other side by the drivers. This river in the rainy season is navigable for canoes almost up to *Pali-ghat*.

Appearance of the country.

After crossing this river, I came to a country like that near the *Nazareny* town in the *Cochi Rájá's* dominions, and consisting of narrow vallies surrounded by low bare hills. The vallies produce annually two crops of rice; each having a perennial stream, that is applied to the irrigation of the soil. The roots of the hills are occupied by the houses and plantations of the natives; and their sides in many places have been formed into terraces; but these are very badly cultivated, considering the abundance of rain in this country, which will ensure plenty of water for any crop that does not require more than four months to come to maturity. The soil, in many places of these hills, is very intractable, and consists of a kind of indurated clay, which, on exposure to the air, becomes as hard as a brick, and serves indeed all the purposes of stone.

Namburi Bráhmans.

Adanad is no town, but is celebrated as the throne of the *Alvangheri Tamburacul*, or chief of the *Namburis*, who are the *Bráhmans* of *Malayala*. Soon after my arrival I sent a message, by a *Bráhman*, to know, whether it would be most agreeable to this person to receive a visit from me, or for him to come to my tent. The answer was, that he would be very happy to see me whenever I was ready. My politeness was lost on the *Bráhman*, who kept me waiting in an outer apartment until my patience was exhausted, and I returned to my tents without the honour of an interview. I then sent to him an order from the government of Madras, commanding all

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persons to give me such information as I wanted, and desired him to come to my tent. This was complied with, and he came attended by several *Namburis*. The *Alvangheri Tamburacul* having been seated on a chair, which he took care should be higher than mine, I soon discovered that he was an idiot, who grinned with a foolish laugh when the most serious questions were proposed to him. His attendants, however, were men of good sense, and apparently well informed; and from them the following account is taken.

The present *Tamburacul* is descended in the male line from the *Bráhman* who was appointed to that high dignity by *Parasu-ráma*, when he created *Malayala* and gave it to the *Namburis*. When a *Tamburacul* is likely to die without male children, he adopts a male of the same family, and appoints him successor; but, if he have sons, the eldest succeeds of course. *Sankara Achárya*, about 1000 years ago, came to *Malabar*, and made some reforms in the discipline of the *Bráhmans*; but the then *Tamburacul* was far from acknowledging the superiority of that personage, and the present one considers himself as much higher in dignity than the *Sringa-giri Swami*, who is the successor of *Sankara Achárya*, and chief of the *Smartal Bráhmans*. The *Tamuri Rájá*, as I have already mentioned, affected to consider himself as inferior only to the invisible gods; but this pretension is treated with the utmost contempt by the *Namburis*, the lowest of whom is of a much higher birth than any prince on earth. This high opinion of themselves is attributed to the power that they have of influencing the gods by their invocations *(Mantrams)*, especially to the power which they have, by means of certain forms of prayer, of rendering an image the residence of a god. The *Namburis* pretend, that while this country was governed by princes appointed by the *Sholun Rájás*, these viceroys were entirely subject to the *Alvangheri Tamburaculs*, and did nothing more than, by means of the civil arm, carry their orders into execution. When the office of *Rájá* came to be hereditary, by the appointment of *Cheruman Permal*, the *Tamburacul* still pretended to have a right to

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dispose of the government; but his power was confined to the performance of a ceremony called *Putapayshacum*, which is somewhat analogous to the anointing that our kings use. On this occasion, the *Tamburacul* and his *Namburis* received much *Dána*, and other charities; but they had no authority to reject the next heir. All the *Rájás*, except the *Velat* family, had, for many generations before the conquest, given up the ceremony of *Putapayshacum*. The *Rájás* possessed no authority to punish any *Namburi*, farther than, in case of some very atrocious crime, to banish him from their dominions. The *Namburis* were subject to the jurisdiction of the *Alvangheri*, who in his judgments was always assisted by a council of learned men, and guided by the *Hindu* law. The book that they consult on this subject is the *Asocha Prayaschittum*, composed by *Véda Vyása*, one of the gods, who assumed the form of a *Rishi*, and was also the author of the eighteen *Puránas*. The laws of *Menu* seem to be totally unknown to the *Namburis*, who all pretend to be *Vaidikas*, nor do any of them follow lay professions. Few of them, however, are men of learning. The only book on astronomical subjects that those here could mention was the *Jotis Sástram*, which, from their account, is a work on astrology. They will neither eat nor drink with the *Bráhmans* of other countries, whom they call *Puttar*, and whom they consider as very inferior to themselves in dignity. The others are equally proud; and these allege, that *Sankara Achárya*, in consequence of their disobedience, cursed the *Namburis*, and degraded them below the faithful *Bráhmans*, who adhered to his council. The *Namburis*, like other *Bráhmans*, marry, and live with their wives, of whom they take as many as they are able to support. A *Namburi's* children are also considered as his heirs. They do not lose cast on account of fornication with a *Súdra* woman; and indeed, in order to prevent themselves from losing dignity by becoming too numerous, the younger sons of a *Namburi* family seldom marry. They live with the elder brother, and assist the ladies of the *Rájás*, and of the *Nairs* of distinction, to keep up their families;

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and in general they are the most favoured lovers, the young women of rank and beauty seldom admitting any person to their bed, but a *Bráhman*, and more especially a *Namburi*. A *Namburi* woman loses cast for infidelity, even if the crime has been committed with a *Namburi*. Many *Namburis* have lost cast by having committed murder, or by having eaten forbidden things. In such cases, their children have in general become Mussulmans. The *Namburis* eat no kind of animal food, and drink no spirituous liquors. They burn the dead, but a widow is not expected to perish on the funeral pile with the body of her husband. The *Namburis*, like the *Smartal*, allege, that *Siva, Brahmá*, and *Vishnu* are the same god; and most of them, like the *Smartal*, wear the mark of *Siva;* but the *Alvangheri Tamburacul* uses the mark of *Vishnu*. They are not too proud to be *Pújáris*, or priests, in even the temples of the *Saktis;* a circumstance that the *Bráhmans* of the East do not fail to mention, in order to render their rivals contemptible.

Persecution of the *Namburis* by *Tippoo*.

On the accession of *Tippoo*, the *Namburis* met with much trouble; and many of them were caught and circumcised. Those, who could escape fled to *Travancore*. It was three years after the Company obtained possession of *Malabar*, before the *Alvangheri Tamburacul* would return to this his proper residence. The *Matam* is now rebuilt, and a throne is erecting for his seat. The Company allow 25,000 *Rupees* a year for the *Namburis* who officiate in the temples.

Nambuddies.

Every *Namburi* who stains his hands with blood ought to become an outcast; but an exception was made in favour of *Putter*, and his companions, who undertook to assassinate *Sholun Permal*, as I have already mentioned. Before he departed on this enterprize, the *Namburis* promised, that, in consideration of the laudable intention with which the deed was undertaken, the law should not be enforced against men who were acting for the good of a cast so favoured by the gods. After *Putter* and his companions, however, had murdered the unsuspecting prince, and had made their escape to the tank where the *Bráhmans* were performing their devotions, they

became struck with horror, and, sitting down on the steps, exclaimed, "How can we with our bloody hands approach such pure beings!" The *Bráhmans* replied, that, in consequence of the promises which had been made, if they had come down they must have been received; but, as they had chosen to sit at a distance, conscious of their impurity, they must ever afterwards be considered as inferior to the *Namburis*. The descendants of these persons are to this day called *Nambuddy*, or *sitting on steps*, and are considered by the *Namburis* as not much higher in rank than *Rájás*, or other princes.

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Dec. 16. *Tritalay.*

16th *December*.—I went to *Tritalay*, a small market *(Bazar)* of 40 or 50 houses, situated on the south bank of the river. It is inhabited by *Hindus*, brought by *Tippoo* from the country to the eastward, with a view of accommodating travellers by keeping shops. This is a business to which the original inhabitants of *Malayala* have a great dislike. The place is situated in the great route between *Pali-ghat* on one hand, and *Calicut* and *Panyáni* on the other. It is, of course, a very great thoroughfare; but the roads are exceedingly bad, or, rather, there is no road whatever. The country through which I passed consists of innumerable low hills, divided from each other by narrow vallies, which indeed is the case almost every where in *Malayala*, or the *hilly country*.

Dec. 17. Fears of the natives.

17th *December*.—I remained at *Tritalay*, endeavouring to obtain an account of the agriculture and produce of the neighbourhood; but found a great difficulty from the fears of the natives, who consider every inquiry as being made with a view of increasing their burthens, and therefore wish to make their condition appear as poor as they can.

Weather in *Malabar*.

The most intelligent farmers here give me the following account of the weather.

In *Canni* (14th September—14th October) they have strong winds from the westward, with a considerable quantity of rain, and much thunder.

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In *Tulam* (15th October—13th November) the westerly winds generally continue; but the rains abate, and come once only in four or five days. They are accompanied by much thunder.

In *Vrichica* (14th November—12th December), or sometimes in *Tulam*, the winds change to the eastward, and blow strong through the *Ani-malaya* passage. Three or four times in the course of this month there comes heavy rain from the eastward. By the natives, the air is reckoned very cold. To my feelings, the days were very hot, but the nights cool and pleasant. The cool air of the night, however, is apt to produce, on those who sleep exposed to its influence, a disease named *Vatum*. In this, the legs are drawn up to the buttocks, and become stiff and emaciated; and, if the patient escape with life, he never recovers the full use of his limbs. The disease, from the accounts of the natives, seems to be a violent rheumatism followed by palsy; I have, however, had no opportunity of tracing its progress.

In *Danu* (13th December—11th January) there are pretty strong winds from the south, and the air is still colder. These winds also produce the *Vatum*. All this month there are strong fogs and dews, but seldom rain.

In *Macara* (12th January—9th February) there is no rain, and less fog than before; but the dews continue heavy. The winds are easterly and strong, and the weather is cool. The *Jack* fruit, called *Chaca* by the natives *(Artocarpus integrifolia)*, is ripe, which is about six weeks earlier than at *Calcutta*.

In *Cumbha* (10th February—11th March) there are very strong easterly winds, but no rain, and very slight dews. The weather begins to get hot. *Mangoes* are in season.

In *Mina* (12th March—10th April) there is very seldom any rain, and most of the rivulets become dry. The weather is hot, with slight breezes from the eastward. *Mangoes* continue in season.

In *Mayda* (11th April—11th May) the winds change to the westward, and there are four or five heavy showers, which are

accompanied by thunder, and generally fall at night. The heat is great. This is the commencement of the ploughing season. CHAPTER XII.

In *Ayduma*, or as it is also called *Vriskuppa* (12th May—11th June), the winds are westerly, and not strong. Moderate rains for the first half of the month, and these are sometimes accompanied by hail. The heat abates considerably. Toward the end of the month the rains become very heavy, and are accompanied by much thunder. Dec. 17.

In *Maytuna* (12th June—13th July) the rains increase, with strong westerly winds, and much thunder: the heat is moderate.

In *Carcataca* (14th July—13th August) there is less thunder; but the westerly winds, and the rains, increase in violence. There is seldom a fair day, or even any considerable intermission from rain.

In *Singhium* (14th August—13th September) the rains and wind somewhat abate, and the thunder is moderate.

Parumba lands formed into terraces.

The low hills occupy a very large proportion of the country, and are clear from woods. Their sides are formed into terraces for the cultivation of hill-rice, *Ellu (Sesamum)*, and *Shamay (Panicum miliare* E. M.). The violence of the rain is such, that it would sweep away any thing which was sown on a sloping surface; and it is merely to prevent this, that the terraces have been formed. They are seldom so level, however, as to enable the cultivator to confine the rain, and inundate their surface. The whole that can be cultivated has been divided into terraces; but that in a very slovenly manner, very different indeed from the hills in China. From the same field a good crop can be had once only in five years. This kind of land is here called *Malaya*, or hill; and is partly the property of the government, and partly that of the landlords *(Jenmcars)*. That belonging to government is cultivated by the neighbouring farmers, rent free; that belonging to the private landlords pays them one fourth of the produce.

Produce and value of *Paddum* land.

Dhanmurry, or *Paddum*, or low land, besides the tax to government, pays to the proprietor from one to four *Porays* of rough rice

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for every *Poray candum*. If a *Poray candum* pay four *Porays* to the proprietor, it is called a four *Patom* land; if it pay three *Porays*, it is called three *Patom* land; and so on. The two highest kinds of land produce two crops in the year, the others produce only one. The land-tax is in the proportion of 1¼ *Vir'-Ráya Fanam* for every *Patom* rent. Thus four *Patom-land* pays five *Fanams* land-tax, which is at the rate of 20*s.* 5*d.* an acre. The remainder left to the proprietor is at the rate of 16*s.* 3*d.* The worst land pays at the rate of one-fourth of the best. The people at first would not acknowledge that the best land produced more than ten *Porays* upon one *Poray candum*; but, by putting a number of questions to them, of which they could not perceive the tendency, they were soon induced to confess, that they had concealed the truth. The common interest of money is 12 per cent. per annum; but as money lent on mortgage *(Canum)* is perfectly secure, four *Porays* of rough rice are reckoned an adequate interest for 100 *Vir'-Ráya Fanams* advanced on mortgage. If the farmer *(Cudian)*, therefore, as usual here, advance 100 *Fanams* on a *Poray candum* of the best land, the interest of the money is equal to the rent *(Patom)*, and the landlord *(Jenmcar)* has no right to any thing, but a bunch of plantains, or some such trifle, as an acknowledgment of tenure: but it is customary, on account of the high rank of the landlord, for the farmer to give him, as a mark of respect, a small quantity of grain. On this account, on a *Poray candum* of the best quality, eight-tenths of a *Poray* of rough rice are usually given. The farmer therefore gives for a *Poray* of land of the first quality as follows:

		Porays.
For *Patom*, or rent	- - - -	4
For *Negadi* 5 *Fanams* - -	} worth -	7
For charges of collection ½ ditto -		
For present to the landlord	- - -	0 $\frac{8}{10}$
For seed of two crops	- - - -	2
For slaves, labour, &c.	- - - -	2
	Porays	15 $\frac{8}{10}$

Allowing that the mortgagee *(Canumcar)*, on account of the goodness of the security, were willing to undertake the trouble of superintending the cultivation without reward, it is evident, that the produce of the two crops on the best land must be on an average $15\frac{7}{10}$ *Porays* on each *Poray-candum*. The people here, however, do not pretend to say, that the mortgagees have no farther profit; and, after having considered the foregoing statement, they acknowledged 10 *Porays* for the first crop, and 7 for the second, leaving a gain of $1\frac{3}{10}$ *Porays* of neat proceeds to the mortgagee for his trouble. If Mr. Drummond be right in his estimate of the extent of a *Poray-candum*, this will make the produce of an acre in the first crop 25 bushels, and in the second about 17 bushels; and on each crop will leave a profit to the mortgagee of about $1\frac{1}{4}$ bushel. Reasoning on the same *data*, which cannot well be erroneous, the produce of the one crop on the worst land must be $5\frac{4}{10}$ *Porays* from a *Poray-candum*, which will give about 13 bushels an acre. During *Tippoo's* government almost the whole of the landlords *(Jenmcars)* fled out of the province, and emigrated to avoid persecution. They have now returned, and are in nominal possession of their estates; but as most of these have been alienated on full mortgage *(Canum)*, they receive but a very small share of the produce.

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Plantations.

In this part of the country there are few coco-nut palms, the produce being too bulky for being carried to the sea side for exportation. The palms that are planted round the houses of the natives are chiefly *Betel-nut (Areca catechu)*; and these are intermixed with *Jack*, *Mango*, orange, lime, and plantain trees. The ground that is applied to the raising of these plantations is the best of what is called *Parumba*; and, when a tenant *(Cudian)* pays the land-tax, and advances 25 *Fanams* on mortgage, for a *Poray-candum*, he is not expected to give any rent to the landlord *(Jenmcar)*. A *Poray-candum* therefore of this land is worth to the landholder 1 *Poray* of rough rice a year, or about $2\frac{1}{2}$ bushels an acre.

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Dec. 18. Face of the country.

18th *December*.—After crossing the river about a mile above *Tritalay*, I went a long stage to *Cherupalchery*, which was the residence of the superintendant of the southern division of *Malabar*, while that office existed. Several good houses, or rather cottages, remain at the place as a monument, but there is no town nor shop. On this day's route the quantity of hill-ground is very great, and but a very small proportion of it is cultivated. Some of it has so gentle a slope, that it admits of being cultivated without being formed into terraces. To judge from the thickness of the grass, one would think that this ground was much more fertile than that of *Coimbetore*.

Tamari Rájás.

Cherupalchery is situated in a district called *Nedunga nadu*, which formed a part of the *Tamuri Rájá's* dominions. The *Tamuri*, although of a cast inferior to the *Cochi Rájá*, and although possessed of less extensive dominions, was commonly reckoned of equal rank; which is said to have been owing to the superior prowess of his people. This produced a confidence in themselves, which, when *Hyder* invaded the country, proved ruinous. The *Cochi Rájá* quietly submitted to pay a tribute, and still enjoys the government of his country; while the pride of the *Tamuri* refused any kind of submission to *Hyder*, and now he is reduced to a cypher, supported by the bounty of the Company. *Hyder* in person invaded the country, but was soon afterwards called away by a war in the dominions of *Arcot*. The *Rájás* embraced this opportunity, and, having repossessed themselves, held their lands for seven years. A *Bráhman* named *Chinavas Row* was then sent against them, and drove them into the dominions of *Travancore*. After nine years of his administration, an English army came, and took *Pali-ghat*; but, on the approach of *Tippoo*, was obliged to retreat by *Panyáni*. The *Rájás* continued in exile until 1790; when, a little before the battle of *Tiruvana Angady*, they joined Colonel Hartly with 5000 *Nairs*. The second personage of the *Tamuri's* family now resides at *Carimporay*, a *Colgum*, or palace, that is situated west from *Cherupalchery*, on the banks of the river.

Invasion by Hyder.

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No names of rivers in *Malabar*.

It must be observed, that in *Malabar* no river has any peculiar appellation; but each portion is called by the name of the most remarkable place near which it flows.

Another account of the weather.

A *Vaidika Bráhman* gives me the following account of the weather here, which may be compared with that of the farmers that I have before detailed. This account is taken from a *Sanskrit* work composed by the serpent *Subhramani*, and illustrated by a commentary of *Sankara Achárya*. The year is, as usual, divided into six *Ritus*, or seasons.

The first, containing *Macara* and *Cumbha* (12th January—11th March), is called *Sayshu Ritu*. In this the prevailing winds are easterly and northerly, and are not strong. There is no rain. The old leaves fall from the trees.

The second, containing *Mina* and *Mayda* (12th March—11th May), is called *Vasanta Ritu*. The weather is hot, with light winds from the westward, and a few showers of rain. The new leaves come out on the trees.

The third, containing *Aydunía* and *Maytuna* (12th May—13th July), is called *Gríshma Ritu*. There are now thunder, wind, and rain; which, being all united together, though not very severe, make a great tumult in the air.

The fourth, containing *Carcataca* and *Singhium* (14th July—13th September), is called *Varshá Ritu*. In this the thunder, wind, and rain are very severe.

The fifth, containing *Canni* and *Tulam* (14th September—13th November), is called *Sarat Ritu*. In this, rain comes both from the east and from the west. The winds are easterly.

The sixth, containing *Vrichica* and *Danu* (14th November—11th January), is called *Hémanta Ritu*. In this there are heavy dews, but no rain.

The first three *Ritus* form *Utráyana;* in which the day-winds are easterly, and the night-winds westerly; the latter of which are the strongest. The last three *Ritus* form *Dakshanáyana*, in which the day-winds are westerly, and the night-winds easterly and the

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strongest. From this it would appear, that on shore the sea and land winds in some degree overcome even the violence of the monsoon; but at sea, near the coast, this is not observable during the strength of the south-west monsoon; at other seasons it is well known to seamen.

Dec. 19. Roads.

19th *December.*—I went about nine miles to *Angada-puram*, having crossed a fine little river, a branch of that which falls into the sea at *Panyáni.* The low rice-fields seem to occupy but a small proportion of the country. The roads are very bad; but Mr. Wye, the collector, has lately obtained leave to lay out on their repair a small revenue, the produce of some ferries. Although the sum is small, yet it will have a considerable effect in a country where the soil is in general favourable, and where there are no carriages. In *Malabar* even cattle are little used for the transportation of goods, which are generally carried by porters. *Angada-puram*, by Europeans commonly written *Angrypar,* is at present a military station, the troops being in cantonments at some distance from the old fort. The situation is very pleasant, and many camp followers, and traders from *Coimbetore,* having settled shops *(Bazars),* have been the means of introducing many conveniences that are not commonly to be found in the inner parts of *Malabar.*

Dec. 20, 21.

20th and 21st *December.*—I remained with Mr. Wye, from whom, in making my inquiries, I received every possible attention and assistance. I have also received from him very satisfactory answers to the queries which I proposed in writing to the Commissioners, and of which I shall here avail myself.

Barren lands in Mr. Wye's circle.

Mr. Wye has the collection of four districts, namely *Bettutanada,* and *Parupa-nada,* on the sea coast; and *Vellater,* and *Shirnada,* toward the *Ghats.* Of the last two districts, Mr. Wye thinks that one half is too steep, rocky, or barren for cultivation. He estimates a third of *Bettutanada,* and a fourth of *Parupa-nada* to be of the same nature.

Hills between *Malabar* and *Coimbetore.*

Besides these districts, there is a tract of land occupying part of the mountains which separate *Malabar* from *Coimbetore.* The

Namburis or *Nairs* had no authority over its inhabitants, who speak the language of *Karnáta*. It is divided into two districts, *Attapadi*, and *Ayrata Cadawa*, each subject to a *Gauda*, or hereditary chief. The pass leading up to *Attapadi* goes by *Manar-ghat*, which was subject to the *Tamuri*, as chief of a district called *Nerunganada;* and the pass leading up to *Ayrata Cadawa* was named *Cherumbil*, and subject to the *Rájá* of *Velater*. Each *Rájá* took advantage of the hill chief, who could only have access to the commerce of the low country through his dominions, and forced him to pay a tribute for permission to trade. This tribute, for both chiefs, amounts to 1000 *Rupees*. The manner in which these chiefs manage their country, or raise the revenue, is here totally unknown; as the natives seldom venture up to the hills, on account of the unhealthiness of their air. The *Cherumbil* pass was reckoned the best; but, owing to the disturbances prevailing in the country, it has of late been neglected, and is now overgrown with trees. It might be cleared at the expense of three or four hundred *Rupees*. From these hilly districts there are roads, that lead to *Dan'-Náyakana Cotay*, and *Coimbetore;* and it would be of great importance to commerce to have these roads cleared, as also the passes which lead up from the *Irnada* district, in *Malabar*, to the southern parts of *Mysore*. For their respective productions, the two countries have a mutual demand, which at present is chiefly accommodated by the circuitous route of *Coimbetore*, and *Pali-ghat;* but, if direct roads were opened through the passes in the mountains, we might expect, says Mr. Wye, "that towns would spring up at the foot of every pass; that the customs would increase; and that small *Bazars* (towns containing shops), so much wanted, would be established on the different routes between the passes and the towns on the sea coast. The *Moplays* of the inland country, hitherto a most troublesome race of men, would, like their brethren on the sea coast, turn their attention to commerce, and procure a field of exertion for their restless spirit, which now so often interrupts the tranquillity of the country."

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Forests.

The forests in every part of *Malabar* would appear to be private

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property. A person who wants to cut timber must first apply to the landlord *(Jenmcar)* for permission; which is granted in a writing called *Cuticanum*, in which is specified the price that is to be paid for each tree. This varies, according to the distance of the trees from water carriage, from two to eight *Fanams* for a *Teak* tree, from one to two *Fanams* for a *Viti*, or black-wood tree *(Pterocarpus)*, and from one to four *Fanams* for an *Aiony* tree *(Artocarpus hirsuta En: Meth:)*: these are the only trees for which the landlords demand a price; but there are two others reckoned valuable; the *Vayntayca*, which resists the white ant; and the *Trimbucum*, an iron-wood, which belongs to the genus that Dr. Roxburgh in his MSS. calls *Hopea*. After the bargain has been made, a small advance is given, and the wood-cutter goes and fells whatever trees he wants. When he is ready to take them away, he informs the landlord, who numbers those that have been cut, and, before he allows one to be moved, receives the full value. The quantity of *Teak* trees annually produced in this circle does not, in Mr. Wye's opinion, exceed a hundred. This valuable tree grows chiefly about *Manar-ghat*, and is therefore too remote from a navigable river to be carried for a market to the sea coast.

No lac nor sandal-wood is produced in the hills of *Malabar;* at least, the few trees of sandal that may be found are devoid of smell.

Iron mines.

In *Velater* there are 34 forges for smelting iron. In company with Mr. Wye, I examined one of these belonging to a very active and sensible *Moplay*, who was anxious for improvement in his profession, and took great pains to show us every part of the process, with a laudable desire of obtaining advice to enable him to improve defects. These are indeed very numerous; and his process is less complete than even that used in *Coimbetore*, which is chiefly owing to the defects of the bellows; for the furnace is much better.

Ore.

In all the hills of the country the ore is found forming beds, veins, or detached masses, in the *stratum* of indurated clay that is to be afterwards described, and of which the greater part of the

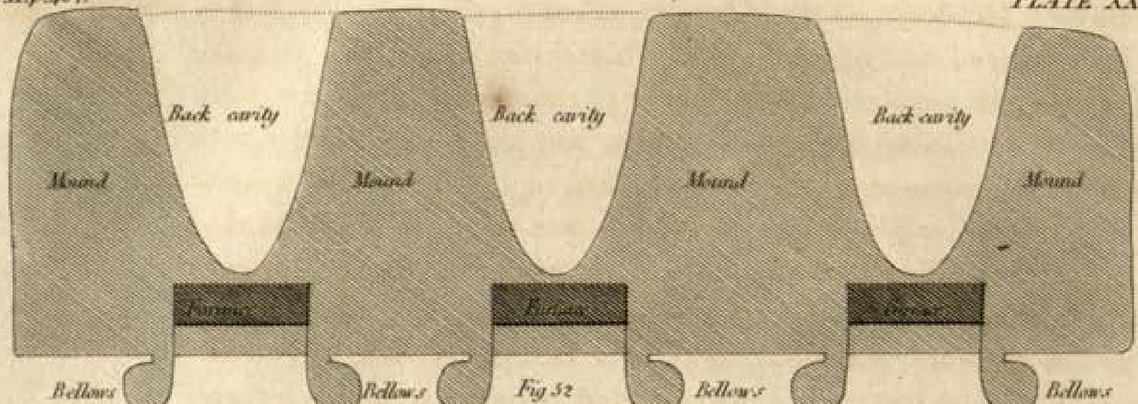
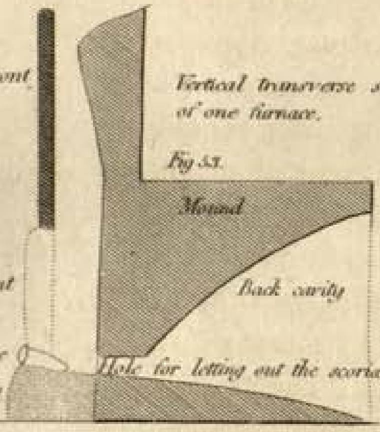


Fig 52

Horizontal section of a Mound containing three furnaces



Vertical transverse section of one furnace.

Fig 53.

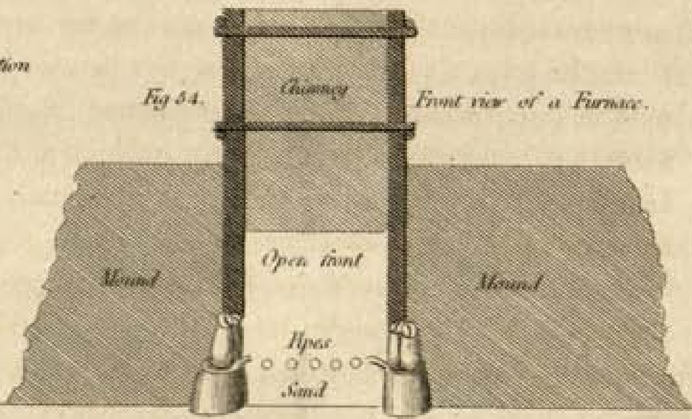


Fig 54. Front view of a Furnace.

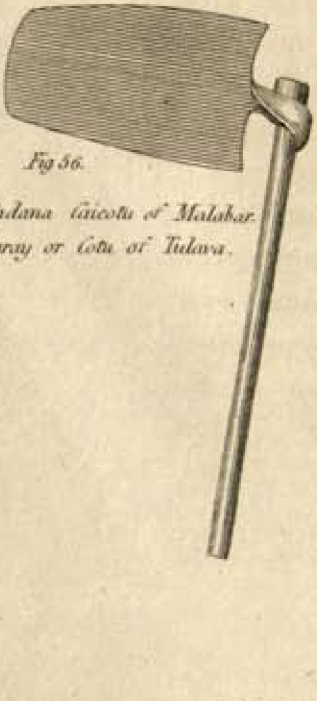


Fig 56.

Padana Caicotu of Malabar.
Haray or Cotu of Tulava.

Caicotu of Malabar.
Haray of Tulava.

Fig 55.

Fig 57.

Malagu of Malabar.

hills of *Malabar* consists. This ore is composed of clay, quartz in form of sand, and of the common black iron sand. This mixture forms small angular nodules closely compacted together, and very friable. It is dug out with a pick-ax, and broken into powder with the same instrument. It is then washed in a wooden trough, about four feet in length, open at both ends, and placed in the current of a rivulet; so that a gentle stream of water runs constantly through it. The powdered ore is placed in the upper end of this trough; and as the water passes through the heap, a man continually stirs it about with his hand. The metallic sand remains in the upper end of the trough, the quartz is carried to the lower end, and the clay is suspended in the water, and washed entirely away. The *Moplay* in general collects the ore by means of his own slaves. At other times, he buys it ready washed for the furnace; and then what he puts in one furnace costs him 10 *Fanams*. Each smelting requires 2160 lb.; the price, therefore, is not quite $3\frac{1}{2}d.$ the hundred-weight. In this ore the quantity of metallic sand is small, in comparison with that of the earthy matter. CHAPTER XII. Dec. 20, 21.

Under the same roof are built two or three furnaces, of which the description will be rendered more intelligible by means of the sketches annexed, Plate XXI. Figures 52, 53, 54. The furnaces are excavated out of the front of a mound of clay, which is 4 feet high behind, and 5 feet four inches before; and about 7 feet wide, from front to back. The excavation made for each furnace is 2 feet 11 inches wide, and 2 feet deep; and is dug down from the top of the mound to the ground. From behind, opposite to each furnace, an arched cavity is dug into the mound; so as to leave a thin partition between the two excavations. For allowing the vitrified matter to run off, there is in this partition a hole one foot in diameter. Above the furnace is erected a chimney of clay, built with four plain sides, which in two different places is strengthened by four *Bamboos*, lashed together at the angles. The front of the chimney consists of baked clay, two inches in thickness. Behind, Furnace.

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the clay is gradually thickened toward the summit; so that the upper mouth of the chimney is contracted to 8 inches in depth by 2 feet 11 inches in width. The front of the furnace is quite open.

Smelting.

Early in the morning, when going to smelt, the workmen put wet sand mixed with powdered charcoal into the bottom of the furnace; so as to fill it up as far as the hole in its back part, through which the vitrified matter is to run out. The sand and charcoal are well beaten, and formed so as to slope from the outer and upper edge, both toward the hole and toward the ground in front of the furnace. The hole is then well stopped with clay; and clay pipes are inserted at each corner of the furnace, for the reception of the muzzles of the bellows. A row of clay pipes, eight or ten in number, is then laid on the surface of the sand, at right angles to the back of the furnace. Their outer ends project a little beyond the front, and their inner ends reach about half way to the back. The front of the furnace is then shut up with moist clay; and stoppers of the same are put in the outer mouths of the pipes. By removing these stoppers, and looking through the pipes, the workmen judge how the operation is going forward. Ten baskets of charcoal, each weighing 63 lb., are then poured in by the chimney; and this having been kindled, the bellows are set to work. Then 16 *Porays* of prepared ore, weighing 2160 lb., and 20 baskets more of charcoal, as the fire makes room for them, are gradually added. The operation lasts 24 hours, two sets of men relieving each other at the bellows, and keeping up a constant blast. The principal workman who attends the fire adds the fewel and ore, and stops up breaches; and, when the mass of iron has formed, breaks the clay that shut up the hole in the back part of the furnace, and lets out much vitrified matter, that strongly resembles brown *hæmatites*, and no doubt contains much iron, which this imperfect operation is unable to reduce. The bellows are then removed, and the front of the furnace is broken down. A great part of the charcoal which has not been consumed is then pulled out with sticks or forks, and

extinguished by water. The mass of iron is allowed to remain on the sand 24 hours, and to cool gradually. According to the success of the operation, it weighs from 8 to 12 *Tolams*, or from 256 to 384 lb. The mass, when cool, is broken in pieces with a large hammer, and sold for use, it being then malleable, although somewhat brittle. The mass is extremely porous, and irregular in its shape, and has never formed what chemists call a button; that is to say, the liquefaction produced on the iron has only been partial, sufficient to cause the particles to adhere in a mass, but not adequate to form a fluid that expels all matters of a different specific gravity. In fact, the mass, in its cavities, includes many pieces of charcoal enveloped by the iron. How these have not been consumed, I do not know; but this circumstance clearly shows, that combustible matter being contained in a *stratum* is no proof, that the particles of this have not been united by a fire capable of mollifying them, and of making them cohere.

Want of proper bellows.

I have already mentioned, that this process obtains only from $11\frac{4}{10}$ to $17\frac{4}{10}$ per cent. of iron from the ore, and that what is produced is very imperfect. The great defect in the process, that renders it so unproductive, seems to be the want of proper bellows. Each man works a pair, consisting of two cylindrical leather bags, about 18 inches high, and 9 inches in diameter. The top has a slit, the edges of which overlap, and serve as a valve. Each pair is placed, on a small platform of clay, at a corner of the furnace; and a man, taking hold of the outer flaps of their upper ends in his two hands, alternately pushes them down to expel the wind, and draws them up to get a supply of air, the one hand going up while the other goes down. The air is expelled through a muzzle common to both bags. Each furnace has two pair, which at the same time requires two men, and there must be two sets, one to relieve the other.

Expenses and profits of the smelting.

To the proprietor the profit of these works is considerable. The expense for each smelting is as follows.

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	Fanams.	Poray.	Edangallies.
Each bellowsman 1 *Fanam*, and $\frac{1}{10}$ *Poray* of rice	4	0	4
The head workman - - -	2	0	1
The hammerman - - - -	1	0	1
Charcoal - - - - -	10	0	0
Ore - - - - -	10	0	0
Fanams	27	0	6
Value of 6 *Edangallies* of rice - -	0,$\frac{1}{2}$	0	0
	27,$\frac{1}{2}$	0	0

The iron sells at 4 *Fanams* a *Tolam*, or 7*s.* 7$\frac{3}{4}$*d.* a hundred-weight. When the operation is well performed, and the iron mass weighs 12 *Tolams*, the proprietor has 20$\frac{1}{2}$ *Fanams* profit; and at the worst, when he gets 8 *Tolams* only, his profit is 4$\frac{1}{2}$ *Fanams*.

The expense of implements and buildings, owing to their wretchedness, cannot be estimated at more than 50 *Fanams* a year; and neither the government nor the landlord demand any thing for fewel.

Laterite.

What I have called indurated clay is not the mineral so called by Mr. Kirwan, who has not described this of which I am now writing. It seems to be the *Argilla lapidea* of Wallerius I. 395, and is one of the most valuable materials for building. It is diffused in immense masses, without any appearance of stratification, and is placed over the granite that forms the basis of *Malayala*. It is full of cavities and pores, and contains a very large quantity of iron in the form of red and yellow ochres. In the mass, while excluded from the air, it is so soft, that any iron instrument readily cuts it, and is dug up in square masses with a pick-ax, and immediately cut into the shape wanted with a trowel, or large knife. It very soon after becomes as hard as brick, and resists the air and water much better than any bricks that I have seen in India. I have never observed any animal or vegetable *exuvia* contained in it, but I have heard

that such have been found immersed in its substance. As it is usually cut into the form of bricks for building, in several of the native dialects, it is called the brick-stone *(Itica cullu)*. Where, however, by the washing away of the soil, part of it has been exposed to the air, and has hardened into a rock, its colour becomes black, and its pores and inequalities give it a kind of resemblance to the skin of a person affected with cutaneous disorders; hence in the *Tamul* language it is called *Shuri cull*, or itch-stone. The most proper English name would be *Laterite*, from *Lateritis*, the appellation that may be given to it in science.

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Gold dust.

In the *Irnada* district, gold dust is collected in the river which passes *Nelambur* in the *Mangery Taluc*. A *Nair* has an exclusive privilege of the collection, and on that account pays a small annual tribute. I was very desirous to have visited the place; but, the district being in extreme confusion, I could not with prudence enter it, especially on such an errand. The *Nelambur* river is a branch of that which falls into the sea north from *Parupa-nada*.

Population.

Mr. Wye gives the following account of the population and stock of his district:

Houses inhabited by Mussulmans - -	12,581
Ditto by *Namburis* - - - -	297
Ditto by *Puttar Bráhmans* - - -	44
Ditto by the families of *Rájás* - - -	33
Ditto by *Nairs* - - - - -	6747
Ditto by *Tiars* - - - - -	4733
Ditto by *Mucuas* - - - -	608
Ditto by people from the country to the eastward -	472
Total -	25,515

It is evident, that Mr. Wye has not given the total number of houses, but only the total of those inhabited by the principal casts to which my queries referred. I imagine, that we may take the total number of houses to be, at least, 28,000. These, at the rate

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of population in *Canara*, will contain 146,800 persons; but Mr. Barber's estimate will reduce this number to 103,900.

The number of slaves are,

Males	- - - -	8547
Females	- - - -	7654
	Total -	16201
Add free persons by first estimate	-	146,800
Total population by first estimate	-	163,001
Total population by Mr. Barber's ditto		120,101

Stock.

Cows	- - - -		17,331
Oxen, large	- - -	2068	
small	- -	25,428	
			27,496
Total animals of the cow-kind	-		44,827

Animals of the buffalo kind 8900.
Number of ploughs 18,000.
Number of looms 329.

From the number of ploughs, which is not likely to be exaggerated, there can be little doubt that the native officers have concealed from Mr. Wye the real number of cattle. 18,000 ploughs require at least 36,000 oxen or buffaloes, to which must be added the young of both species, the cows, and the cattle employed for carriage and in mills. The returns of cattle made to Mr. Warden are apparently correct; and at their rate 18,000 ploughs would require 66,840, in place of 53,727 given by Mr. Wye.

Rice land extent.

The *Dhanmurry, Paddum,* or low land in Mr. Wye's circle is stated, in the revenue accompts, at 170,400 *Porays;* of which, in the two districts nearest the *Ghats,* 3500 were last year waste. Many parts of the districts near the sea, and near the rivers in *Shirnada,* are, in the rainy season, very liable to suffer by being

overflooded. In the last rainy season many people were obliged, once or twice over, to transplant their *Macara* crop. In the last mentioned district, owing to an embankment having given way, some low land has been deserted, and is now overgrown with bushes. In the interior part of the country, there are large tracts which have been over-run with high grass and trees since they have been deserted by their inhabitants, owing to the persecutions of the *Hindus* by the late *Sultan*, and the subsequent depredations committed on the *Nairs* by the *Moplays*. These atrocities raged most violently in the *Malabar* years 970—974; and were somewhat checked two years ago by the vigorous justice of Mr. Waddel, then superintendent of the southern division; but in the country immediately north from *Angada-puram*, they have again commenced.

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The ground called 166,900 *Poray-candums*, stated in Mr. Wye's account to have been cultivated, can have no reference to the quantity of seed, which Mr. Smee estimates at 472,113 *Porays:* allowing one half to produce two crops in the year, the *Poray-candums* must at this rate be 314,742; but this would be only 17 *Poray-candums* for each plough to cultivate; whereas, by the account of the farmers at *Pali-ghat*, a plough ought to cultivate 40 *Poray-candums*. Whether the number of ploughs have been exaggerated, or whether, owing to the commotions in *Velater*, Mr. Smee was prevented from surveying the whole district, I cannot say; but it is evident that there is some error. The produce of the districts, as stated by Mr. Smee, cannot be well reconciled with the population, taken at the lowest estimate. Mr. Smee calculates the gross average produce of rice in these districts, deducting seed, at 2,928,751 *Porays;* but 120,000 inhabitants would require 4,180,000, at the rate which I allowed in *Pali-ghat*. The exportation of these districts is not considerable; but we must either allow, that the number of inhabitants and ploughs is greatly exaggerated, or that Mr. Smee's survey did not extend to the whole of Mr. Wye's district. I am indeed inclined to think this last to be the case.

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Value of rice estates.

With regard to the *Porays* of land mentioned in the revenue accompts, a most fallacious opinion has been entertained, that they are so much land as will sow a *Poray* of seed, and this is defined to be 32 cubits square, which is still smaller than the allowance made by Mr. Warden. The fact at *Angada-puram* is, that, when the assessment was made by *Arshid Beg Khán*, so much land, good or bad, was called a *Poray* of land, as was supposed to produce to the landlord *(Jenmcar)* 10 *Porays* of *Vir'-Patom*, or of neat rent. The tax imposed on this was 5 *Fanams*, which, at harvest, is nearly the value of the whole rent; so that, unless the proprietor reserved the grain for a favourable market, he had no profit left him from his rice-lands. This, the people say, has been actually the case; but as people are still willing to advance money in mortgage on rice-lands, we may safely conclude, that *Hyder* did not so far deviate from his usual policy and justice, as to lay on a tax that would entirely absorb the property of the subject. It is true, that the inhabitants of *Malabar* speak of *Hyder* as of a rapacious tyrant; but little attention can be paid to what such people say, as they are universally discontented with the government of the English, by whom they have been indulged like sick children. To illustrate the matter more fully, let us consider what is usually done, according to the acknowledgment of the natives. For the mortgage of what is in the revenue accompts called ten *Porays* land, and of what among the proprietors is called a hundred *Patoms*, being estimated to produce 100 *Porays* of rack-rent *(Vir'-Patom)*, a man, who has money is willing to advance on mortgage bond *(Canum)* 300 *Fanams;* and, after deducting the interest, to allow the landlord one-fifth of the rent *(Patom)*. The mortgagee pays the land-tax; and for the trouble of cultivation, should he not occupy the land himself, allows the farmer a certain fixed amount in grain. This allowance is as follows.

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		Porays.
For seed	- - - -	20
For cattle, implements, and slaves	. -	60
For neat profit to the farmer	- -	20
	Porays -	100

From this it is evident, that what in the revenue accompts is called a *ten-poray-land*, on an average actually sows 20 *Porays*, although the whole cannot be land that produces two crops. After deducting the 100 *Porays* given to the farmer, it is supposed that an equal quantity remains to the mortgagee; but, if we consider what he has to pay, we must allow him more.

		Porays.
The natives allow 5 *Porays* for the interest of 100 *Fanams*; so the interest of the bond is	- - -	15
Land-tax 5 *Fanams*, with 10 per cent. collector's charges = 5, all together 55 *Fanams*, worth	- -	110
One-fifth of rent, deducting interest	- -	17
Total to be paid by the mortgagee	-	142
Farmers' allowances	- - - -	100
	Porays -	242

We may safely assert therefore, that in both crops, the average produce of what, in the revenue accompts, is called a *ten-poray-land*, is at least 242 *Porays*; otherwise nobody would be willing to advance money on mortgage. Perhaps somewhat might be added for the trouble of the mortgagees *(Canumcars)*; but, considering that they have perfect security for their money, and that, as most of them cultivate the ground themselves, they have the large profits allowed here for the *Cudian*, or cultivator, I am inclined to think, that nothing ought to be added on that account. Mr. Smee's estimate of the average produce of this district is 7½ seeds for one: at this rate, the 242 *Porays*, which make the produce

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of what is called a *ten-poray-land*, will in fact be the produce of about 31 *Porays* sowing.

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Land-tax.

After the first invasion of *Malabar* by *Hyder*, an attempt was made, by *Chinavas Row*, to introduce a regular system of finance; but this could never be carried into execution. The present system was sometime afterwards introduced by *Arshid Beg Khán*. All the vigilance of this commander, and of his master, were certainly inadequate to prevent unjust inequalities in the original assessment; and there cannot be a doubt, that many landlords *(Jenmcars)* who chose to corrupt the officers of revenue had their lands valued at a low rate, and the deficiency which this occasioned was made up by valuing high the lands of those who were too poor, or too proud, to corrupt the assessors. *Tippoo* having heard frequent complaints of this, and having been misled by the improper use of the term *Poray-land*, which he conceived to signify, in the revenue accompts, a quantity of land capable of sowing a *Poray* of seed, endeavoured to equalize the tax by a measurement, conducted by *Ram Lingam Pillay*, who had previously ascertained the average extent of ground sown with one *Poray*. This made the matter infinitely worse; as his officers were much more liable to corruption than those of his father; for he was very lenient to such offenders.

Division of rice-lands. *Ubayum.*

In *Velater* there are a few spots of land, watered by perennial streams, that annually produce three crops of rice. The greater part of the vallies give two crops: the first by means of the rain in the south-west monsoon; and the second by means of the easterly rains, and of the small streams which wind through the vallies, and are forced out upon the low grounds by means of dams. About the end of January, these streams dry up, but the supply of water is sufficient to bring the second crop to maturity. The lower parts of the vallies are called *Ubayum* lands; but the whole does not produce two crops. This term signifies perfectly level ground; and in some places the water lies so deep on it, that one crop only can be procured.

Dec. 20, 21. *Palealil.*

The higher borders of the vallies, which are too much elevated to receive a supply of water from the rivulets, but which are sufficiently level to admit of being inundated in the rainy season, are called *Palealil*, and annually produce only one crop. Mr. Wye thinks that the quantity of this does not amount to more than a twentieth part of the *Dhanmurry*, or rice-ground. The land which is higher than that called *Palealil* is *Parum*, and in this neighbourhood pays no land-tax.

Different methods of cultivation.

The three usual modes of cultivating rice are here in use. When the seed is sown without preparation, the cultivation is called *Podi-wetha*, i. e. dry-sowing; when, before sowing, it is sprouted, it is called wet-sowing, or *Chetu-wetha;* and when it is transplanted, it is called *Nearra.*

Different crops.

From the months in which the crops ripen, the first is called *Canni*, and the second *Macara*. The first is the most productive, in a proportion of 3 to 2; but, owing to its being cut in the rainy season, the grain is often injured.

Wet-sowing in *Palealil.*

In the *Palealil*, or higher parts of the level land, the most common cultivation is the sprouted seed. When, however, any fields of the *Ubayum* or low-land come up thin, the young rice is pulled up, and transplanted into a *Palealil* field; and there still remains time for having two crops on the former. On *Palealil* land the following kinds of rice are cultivated.

Navara -	a 2½ months crop.	Average produce 5 seeds
Watun -	4 - - -	7 or 8
Calii -	4 - - -	7 or 8
Caruma -	3½ - - - -	7
Ari Modun	3 - - - -	7
Tua Punarin	4 - - -	7
Cheru Modun	3 - - -	7
Ari Caruma	3 - -	5

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The average produce of this land may therefore be taken at $6\frac{415}{1000}$ seeds. If one *Poray-candum* measure only 32 cubits square, then the seed for an acre will be above 6 bushels, and the produce $32\frac{4}{10}$ bushels. I am inclined, however, to think that the *Poray-candum* is larger. The expenses of cultivation, and farmers *(Cudians)* profit, amount on this land to two thirds of the produce, leaving one third to the landholder and government.

Manner of conducting this crop.

The following is the manner of cultivating *Palealil,* or the higher parts of the level land, with sprouted-seed. Between the 2d and 11th of June plough twice while the field is dry, and afterwards inundate the ground, which in the course of the following month must be ploughed eight times, the plough going over the field, at each time, first length-wise, and then across. The field is all the while kept inundated, and before the fourth or fifth ploughing is manured with leaves and twigs. After the eighth ploughing the dung is given, and ploughed down. The mud is then smoothed with the feet; and about the 13th of July, the prepared seed is sown, the water being two or three inches deep. In twenty or thirty days the weeds must be removed by the hand. It ripens without any farther trouble than confining the water to the proper depth. The ears only are cut off; and, the rain making it impossible to preserve the straw for fodder, the cattle are allowed to eat it on the ground. The seed is made to sprout by putting it in baskets, and wetting it with water. Thrice a day afterwards, for from four to six days, it is watered, and is then fit for use.

Ubayum land producing two crops.

On the *Ubayum,* or low level land, the first, or *Canni* crop, is in general sown in the same manner as on the fields called *Palcalil;* only the season commences somewhat earlier, as the lowness of the situation affords a better supply of water. When the ears have been removed, the straw is immediately ploughed in for the second crop, which is always transplanted. For this the field is ploughed five or six times. If the farmer be not pushed for time, he allows

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for this operation from ten to twenty days; but, if the season be nearly over, he completes it in less than a week. After the second ploughing, the field is manured with leaves; and after the last with dung, which is ploughed in, and the seedlings are transplanted, the mud having been previously smoothed by the *Uricha Maram* (Plate XIX. Fig. 46.). The fields are always kept inundated, and require no weeding. The straw of this crop is cut down close by the ground, and kept four days in a heap. The grain is then rubbed off with the feet; for the *Hindus*, on such occasions, make as much use of their feet as we do of our hands. Twenty days afterwards the straw is beaten with sticks, and gives some more grain of an inferior quality. The seedlings are raised on a piece of high ground allowed for the purpose, and which pays no tax. Between the 14th of August and the 13th of September this is ploughed four or five times in the course of eight days, the field being in general inundated; this practice, however, is not always followed. The field is manured with leaves and dung; and the seed, after it has been prepared so as to sprout, is sown very thick. It seldom gets any water, except the rain, and before it is transplanted is often very nearly dead. Before the seedlings are pulled, the field must be well watered. After one month and a half, they are fit for transplantation, and continue in that state for fifteen days. The produce of good *Ubayum* land is reckoned twelve seeds for the first crop, and eight for the second, in all twenty seeds; which, should one *Poray* of seed require only 32 cubits square, would make the produce of the two crops on an acre 123 bushels.

Ubayum land producing one crop.

In the *Ubayum* land, which, owing to too great a depth of water, produces only one crop, a particular kind of rice called *Cuttaden* is cultivated. To ripen it requires seven months, and its harvest is *Macara* (12th January—9th February). It is always transplanted, and in good seasons gives 15 seeds, which will make the produce of an acre $62\frac{1}{4}$ bushels, if 32 cubits square sow a *Poray* of seed.

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Kinds of rice cultivated on *Ubayum* land.

The kinds of rice cultivated on *Ubayum* ground for the *Canni*, or early crop, are,

Walli Arien	-	a 6 months crop.
Cheru Arien	- -	$5\frac{1}{2}$ ditto.
Ayduma Cari	-	5 ditto.
Cartipun Arien	-	4 ditto.

For the *Macara*, or late crop.

Cumbalum	- -	a 6 months crop.
Mundium pala	-	$5\frac{1}{2}$ ditto.
Tecun	- - -	4 ditto.
Bembala	- -	4 ditto.

The kind of rice must be adapted to the soil. On *Ubayum* land nothing but rice is ever cultivated.

Parumba.

In Mr. Wye's district, no estimate has been formed of the extent of the *Parumba*, or hilly lands. The lower parts of the hills bordering on the rice fields are occupied by the houses of the natives; these are surrounded by gardens, in which are planted fruit trees; and among them many different small articles, such as *Shamay (Panicum miliare)*, *Pyro* (legumes), turmeric, and ginger, are raised. The higher parts, not too steep or rocky, are converted into terraces, or might be so; and, according to their fertility, are once in three, four, or five years cultivated for hill-rice, and *Gingely (Sesamum)*. In the eastern parts of *Velater*, a great extent of this kind of ground has been allowed to be over-run with bushes and long grass; and Mr. Wye does not suppose that it would repay the expense of clearing. He thinks that on this kind of ground the culture of cotton might be introduced, by furnishing the collectors with seed to distribute. He thinks that the Company might show an example, by cultivating a small spot in each district, to initiate the natives in the manner in which new articles might be managed. The expense would be trifling. He thinks that, if the natives knew

Introduction of cotton.

how to cultivate them, *Sholum (Holcus sorghum), Dhal (Cytisus cajan), Coolty (Dolichos biflorus)*, and other dry grains, might be reared. I saw a field which Mr. Wye had sown with hill-rice mixed with *Bourbon* cotton seed. The crop of rice had been very good; but, owing to his absence at the time, the weeds had been allowed to choke many of the cotton plants. Such of them as had struggled through were very thriving and productive. There can be no doubt, but that in this manner a very good crop of cotton might be obtained, if pains were taken, after the rice has been cut, to keep down the weeds by ploughing or hoeing. I have, however, some doubt, whether the cotton crop would equal in value that of *Sesamum*, which now always follows the hill-rice. Although the whole of the *Parum*, or hilly land, is private property, no one here prevents the cattle of his neighbours from feeding on his ground, or any person that pleases from cutting grass. The people of the country say, that it is customary for the landlords to grant hill land, free of rent for six years, to any person who will clear away the trees or bushes, and form terraces. Afterwards, when cultivated, it pays a rent to the landlord, but no land-tax has been exacted. The best soil on these hills is a red clay, like the soil used for *Ragy* in *Mysore*. *Ellu* or *Sesamum* is always sown immediately after the hill-rice has been reaped; but, as this second crop is precarious, some fields are sown with *Ellu* alone.

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Hill-rice.

For the *Modun*, or hill-rice, the *Parum* is ploughed three or four times between the 14th of July and the 13th of August. Afterwards, for eight times, it is ploughed once a month. Between the 11th of April and the 11th of May it is ploughed four or five times, and before the last is manured with ashes and dung. At the end of this period, the seed unprepared is sown broad-cast, and covered with the plough. When the rice is about a foot high the weeds ought to be removed by the hand; but in general this is much neglected. In ninety days it is ripe. The ears are then cut, and the straw is immediately ploughed down for *Sesamum*.

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Sesamum.

The field, after the rice harvest, is ploughed eight or ten times, and before the last is manured. Between the 14th of August and the 15th of September, the *Ellu* seed is sown, and covered with the plough. It ripens in four months.

Tenure and value of hill-land.

This land is never alienated on mortgage, but pays to the landlord what is called *Warrum*, or rent. Before either crop is reaped, its amount is estimated, and the cultivator pays a certain share to the landlords. These consider themselves as entitled to a fifth part of the gross produce; but, in fact, a great many of the cultivators being Mussulmans, they will seldom give more than a tenth. The hill-rice is an extremely precarious crop, and five seeds are reckoned a good return; but this, if Mr. Wye be right in calling 32 cubits square a *Poray-candum*, is 30 bushels an acre; and as this rice comes in when that article is scarce and dear, it sells very high. One-sixtieth of a *Poray* of *Ellu* seed is required for a *Poray-candum*, and 24 seeds is a good crop; which makes the produce $2\frac{4}{10}$ bushels an acre.

Shamay, or *Panicum miliare.*

The *Shamay* is sown in the plantations, or in the ground that serves for raising the seedlings of rice for transplantation. This requires four or five ploughings. The seed is sown about the beginning of May, and is covered by having bushes drawn over the field. There is no regular *Warrum* or rent for *Shamay*, but the landlord always gets some share. It ripens in 60 days, and produces very little; but it is ripe at a season when grain is always scarce and dear, and keeps the cultivators alive until the rice harvest.

Improvidence of the natives of *Malabar.*

The people of *Malabar* are indeed very improvident. As soon as the rice harvest is over, in order to drink and feast, they sell off their grain at a very low rate; and seven or eight months afterwards their stores are commonly exhausted, the price of rice is doubled, and they are reduced to eat many things which, while rice was in plenty, they would not taste.

Plantations.

The ground for plantations of palms, fruit trees, pepper, *Betel-leaf*, &c. must be free of rocks, and near a supply of water. It pays

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no land-tax; but a tax has been imposed on some of the articles that it produces. When a man wants to make a new plantation, he applies to some landlord, and gets, upon a land called *Cuey Canum*, a piece of ground fit for the purpose. According to the size of the garden, he advances from 30 to 50 *Fanams*, forms the plantation at his sole expense; and for two years after the garden or plantation becomes productive, in order to reward him for his trouble, he receives the whole profits. Afterwards he continues to cultivate the garden; and for his trouble, and for the interest of the money advanced to the landlord, and expended in forming the plantation, he receives one half of the produce. At any time, by paying up the money advanced, and the value of the trees planted, the landlord may entirely reassume the plantation. The value of the trees is fixed by long custom, and must be very nearly the real expense incurred in bringing them to maturity; otherwise no man would be so foolish as to advance money, or form plantations, on the tenure called *Cuey Canum*. A *Betel-nut* palm *(Areca)* is valued at three-tenths of a *Poray* of rice, worth about half a *Fanam;* a *Jack* tree *(Artocarpus integrifolia)* is valued at 8 *Fanams;* a coco-nut palm *(Cocos)* at 16 *Fanams;* a tree covered with pepper vines at 5 *Fanams*. These *Fanams* are the old *Vir'-Ráya Fanams*, worth ¼ *Rupee*, or about 6*d*.

Negadi, or tax.

Before the Mussulman invasion, these gardens were to the landlords a very valuable property; but, when a tax was laid on, it was supposed to exhaust almost the whole of the landlord's share; and, where the garden is held by the tenure called *Cuey Canum*, he gets only from one to three *Fanams* yearly from the *Canumcar*, who pays the taxes. The plantations in *Velater* are on the decrease, which, like all other evils in *Malabar*, is usually attributed to the taxes, but it seems to me without justice. In the other districts under Mr. Wye, the plantations are increasing, and there is no reason to suppose that the tax is more oppressive in the one than in the other. Besides, although the tax, no doubt, bore excessively hard on the

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landlords, and may have nearly annihilated their property, as is alleged, it is not asserted, that it has infringed on the share of the persons possessing by the tenure called *Cuey Canum;* and it is by that class of people alone that gardens have been formed, and by them that they are most commonly kept in repair. But the oppression of the former government, and the turbulence and disorder that have prevailed in *Velater* since it fell under the Company's management, are quite sufficient to account for the destruction of the plantations.

Produce of gardens.

The trees most commonly planted in *Velater* are, the *Betel-nut (Areca),* and *Jack (Artocarpus integrifolia). Betel-leaf (Piper Betle)* is raised in a greater quantity than is consumed in the country; but it is all in the small way; every garden has eight or ten vines, for which the occupant pays nothing. Here are also many of the palms called by the natives *Erimpanna,* the *Caryota urens* of Linnæus. Its leaves are the favourite food of the elephant; and the palm wine most commonly used here is extracted from its young *spadix,* or flowering shoot. The *Jagory* prepared from this juice is inferior to that which is prepared from the juice of the coco-nut, but superior to the *Jagory* of the *Brab,* or *Borassus.* The natives, however, for drinking, greatly prefer the palm-wine of the coco-nut tree, but it is expensive. The seeds of the *Erimpanna* are planted, but it pays no tax. In general, it pushes out only one *spadix* annually; but that is so productive, that the *Tiars* pay yearly a *Fanam* for liberty to extract the juice of each palm. When this is old, and has become unfit for producing juice, it is cut; and the heart of the upper quarter of the stem is converted into a kind of sago, which the poor eat in the scarce season. This heart is divided into small pieces, and is exposed for five or six days to the sun. The pieces are then beaten in a large wooden mortar, like that used for removing the husks of rice. By this method a powder is separated from the stringy part. This powder is dried for another day in the sun; and in the evening, to separate some remaining strings,

Erimpanna, or Caryota urens.

it is again beaten. From one tree, about a *Poray* of clean powder, or of a very coarse sago, is procured. This having been washed in water, and the larger part of the water having been poured off, it is boiled with the remainder into a kind of pudding, which is eaten with salt and *tyre*, or milk curdled by having become sour. Dec. 20, 21.

Black pepper.

Mr. Wye says, that in the southern division of *Malabar*, the cultivation of black pepper *(Piper nigrum)*, owing to *Tippoo's* having destroyed the vines, is much less than it formerly was; but it is still considerable, and may produce 800 *Candies* of 640 lb. each, and worth at least 100,000 *Rupees*. All the gardens are small, and all the cultivators have other property. In June, July, or August, the traders go round to the cultivators, and advance them money, on condition, that in January or February the cultivators shall deliver their pepper at a given place. The money advanced is in proportion to the wants of the cultivator. If he be pressed for money, not above two thirds of the value will be given. In other cases, where the cultivator is not so necessitous, the money advanced is nearer the true value of the pepper. The condition of the bargain is also such, that, if the cultivator does not deliver the stipulated quantity of pepper, he must pay for the deficiency at the *Calicut* price, which is considerably greater than the common rate of the interior parts of the province. The advance is frequently made in cloth or other goods; but most commonly in old *Fanams*, worth ¼ *Rupee*. There are, however, several men, chiefly of the *Moplay* cast, who are prudent enough to be able to wait for their money until the produce of their gardens is ready for delivery. These, in general, let their gardens on *Vir' Patom*, where the cultivator is in fact nothing more than a superintendant for the proprietor, who furnishes every expense, and allows a small per centage on the produce for the support of the tenant. The traders who make the advances to the farmers are mere factors for the merchants residing in the great towns, who furnish them with goods and cash to make the advances, and who have them in as great subjection as they

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have the inconsiderate cultivators. In the southern districts, there being several merchants who make advances, and of course there being some competition, the farmers get for their pepper something that approaches to a fair price, and they are daily increasing the cultivation; but in the northern district every thing is so much under the control of *Mousa*, the great monopolist at *Tellichery*, that it would be of very little importance to the cultivator were all the vines to be destroyed; and few are willing to plant new ones in place of those that decay.

Mr. Wye's proposal for taking pepper in payment of the land-tax.

Mr. Wye thinks that the most ready way of encouraging the cultivation of pepper would be, to allow the proprietors to pay it to government, in lieu of revenue, at a certain fixed rate, which, he thinks, need not exceed 100 *Rupees* a *Candy*. The average price given by the merchants to those not in distress is 125 *Rupees;* but of late it has cost the Company much more. Those who could dispose of their pepper to greater advantage than the Company's offer, might sell it as they pleased; by far the greater part of it would, however, go to the Company; which would gain considerably, and could be put to no inconvenience, by the plan in the southern district, where the amount of the revenue always greatly exceeds the value of all the pepper produced. In the northern districts it might perhaps, at times, be inconvenient for the Company to advance money, and the value of the pepper exceeds the amount of the revenue; but even there the pepper, to the extent of each man's land-tax, might be received, at a fixed price, which, if fair and reasonable, would effectually protect the industrious cultivator from monopolists, whose influence has been known to affect even the commercial interests of the Company.

Plan for the purchase of the whole of the pepper by the Company.

Mr. Wye thinks that it might be very advisable for the Company to purchase the whole of the pepper raised in the province, and to make advances to the poorer tenants who may be in need of such assistance. Whatever the Company did not want for their own immediate commerce, might be sold by public sale at the great

marts, such as *Tannore, Calicut,* and *Tellichery;* and the price to be given for the pepper should be regulated by the proceeds of these sales. Mr. Wye thinks that this would be an effectual mean of preventing smuggling, by which the revenue is at present excessively defrauded, there being a duty of $10\frac{1}{2}$ per cent. *ad valorem* on all the pepper exported. The whole of this business might be managed by the collectors, so far as the delivery of the pepper into the Company's store-houses, after which it would of course be under the management of the commercial resident. In the bonds taken by the traders when they make advances, there is no particular precaution taken for the delivery of the pepper of certain qualities; so that we may safely conclude, that difference of curing, or other similar circumstances, make no considerable difference in its value; the receiving it by the collectors, therefore, would be attended with little trouble, and require no particular skill. I have already mentioned this, as one of the means that might be adopted to obviate the difficulties that must always attend a tax which is imposed upon plantations by the number of trees that they contain. I have in my possession a manuscript concerning *Travancore*, in which it is stated, that the *Kerit Rám Rájá*, in the year 1757, having received some assistance from the English, was willing to favour their commerce. On this occasion Mr. Spencer, the English chief, took an account of the pepper produced in the dominions of that prince, where there was no land-tax, but where the *Rájá* monopolized all the pepper, and gave the cultivators a fixed price for whatever they could raise. As the pepper trade of *Travancore* has always been more flourishing than any other, we may fairly infer, that this is the way in which a tax may be levied from it with the greatest advantage to the extent of cultivation. The whole pepper raised in the dominions of *Travancore* amounted to 11,752 *Candies*. For this the *Rájá* gave to the cultivators 30 *Rupees* a *Candy*, amounting to 3,52,560 *Rupees*. The amount of the sales, even including 2000 *Candies* that were given to the English Company at the low price

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of 82 *Rupees,* came to 13,12,260, or on an average 111½ *Rupees* a *Candy.* The *Rájá* did not, therefore, allow the cultivators more than 27 per cent. of the produce; and yet we know that the cultivation was carried on with the greatest spirit. But were the Company to monopolize the pepper, and allow the farmers 50 per cent. of the value, or 60 *Rupees* a *Candy,* I am persuaded that their profit would greatly exceed the amount of any revenue which they can derive from the present plan. How far a similar monopoly might be extended to coco-nut and *Betel,* or *Areca,* with advantage, I am not certain. I think it probable, however, that it would contribute greatly to the benefit both of the revenue and of the cultivator. But these being bulky articles, and not easily smuggled, an excise on them might answer the purpose very well, and leave the trade more open to competition.

State of the plantations.

The taxable trees which are planted in Mr. Wye's districts, according to that gentleman, are,

	Bearing.	Unproductive.	Total.
Jack trees - -	25,740	43,929	69,669
Coco-nut trees	2,94,025	4,26,548	7,20,573
Betel-nut trees -	2,68,375	4,10,152	6,78,527
Pepper vines -	8,484	24,026	32,510

4'7,5 47

According to Mr. Smee's survey they are,

	Bearing.	Unproductive.	Total.
Jack trees - -	34,428	72,117	1,06,545
Coco-nut trees	3,79,659	4,17,630	7,97,289
Betel-nut trees -	2,06,699	4,37,833	6,44,532
Pepper vines -	29,764	87,092	1,16,856
Brab trees - -	941	3,741	4,682

365 487

Mr. Wye's statement is that by which the revenues are at present collected, and was formed several years ago. If accurate, these details would show that every article of plantation was advancing in the districts under Mr. Wye, except the *Betel-nut*, which grows chiefly in the interior parts of the country, where the disturbances have prevailed; and this confirms my opinion, that it is owing to these disturbances chiefly, and not to the taxes, that the plantations in many parts of *Malabar* are on the decrease. CHAPTER XII. Dec. 20, 21.

Cattle and fodder.

This seems to be a country well fitted by nature for rearing cattle; but no place, in fact, rears worse, or fewer. The hills over a great part of *Malabar* are clear of wood or bushes, and in the rainy season produce a thick coat of grass, which, as it ripens toward the beginning of the fair season, and is then about a cubit high, is fit for making hay. By the natives this is entirely neglected. Some of the grasses are indeed very coarse; but Mr. Wye has made good hay from one of the species, which I take to be Dr. Roxburgh's *Ischæmum geminatum.* It grows very commonly, and with a little pains might be made universal. At present, there being the greatest abundance of grass, the cattle of *Malabar* are in better condition than any that I have seen in India; but, as that will soon wither up from the drought, I am told, that for three months before the commencement of the rainy season their condition will be deplorable. On the present system, no more cattle can be kept than what can be supported from the beginning of January until the end of May upon the straw of the second or smallest crop of rice. The straw of the first crop, owing to its being cut in the rainy season, cannot be preserved. If hay could be collected, or if on the higher *Parum* lands *Ragy (Cynosurus corocanus)* could be cultivated, merely for the straw, a great many more cattle might be kept, and the increased quantity of manure would be an immense advantage to the farmer.

Want of markets.

Every where in the interior parts of *Malabar* a prodigious inconvenience is felt, from the want of *Bazars* or markets. A little

CHAPTER XII. Dec. 20, 21. encouragement given to the *Nazarens* might induce that industrious class of men to settle in small villages of 30 or 40 houses, at reasonable distances throughout the country, where they would keep shops greatly to the advantage of the natives.

Commerce. The exports and imports, by sea and land, in the part of this province under Mr. Wye will be seen in extracts from the custom-house accompts, which were sent to me by that gentleman. See the APPENDIX at the end of the Third Volume.

Salt. Mr. Wye says, that in his districts there are 18,544 *Cannies* or plots of ground employed for making salt, and that the quantity might probably be increased, were the inhabitants rich enough to incur the necessary expense. According to the calculations procured at *Calicut*, the quantity of salt made will be about 2096 Winchester bushels. It will be seen, that the quantity of salt exported, especially by sea, is considerable: in the two last years, after allowing for the importation of a small quantity, an excess of 40,000 *Parahs* has been exported. I am not acquainted with the contents of a *Parah* of salt. If it be the same with a *Poray* of rice, the annual exportation would be double the quantity which, according to my calculation, is manufactured. The *Canny* of salt ground may, however, be different here from that in use at *Calicut*.

Dec. 22. Appearance of the country. 22d *December*.—In the morning I went a long stage to *Vencatacotay*. The road, most of the way, passes along the ridge of a low hill, whence narrow vallies go off toward both sides, and are separated from each other by branches of the hill. These vallies are very beautiful; but the rest of the country, at this season, looks ill. It is only the declivities of the hills that are formed into terraces for cultivation; the level ground on the summits of the ridges, which occupies a large proportion of the country, is quite waste. The soil in some places is apparently good; but, in general, the *Laterite*, or brick-stone, comes very near the surface, and would impede the plough. In some places the granite appears. As usual in *Malabar*, it is entirely free from veins of quartz or felspar. The

whole, however, is covered with long grass used for thatch and pasture; but not a thousandth part of it is employed for these purposes; and in December and January the remainder is burnt, which destroys the bushes that spring up in the rainy season, and keeps the country clear. CHAPTER XII. Dec. 22.

Vencata-cotay is in a district named *Shirnada*, and the land-tax is paid in kind. This appears to be owing to its having formerly been *Chericul* lands, that is, such as were appropriated for the support of a *Rájá*. When the *Rájá* of the *Tamuri* family, to whom it belonged, fled to *Travancore*, the whole was seized, and valued at the full rack-rent. By some error in the accompts, every *Patom* (portion equal to the quantity of seed sown) of rent was valued at a *Fanam;* which being more than its average value, the farmers would not have cultivated the ground, had the rent been demanded in money. It has therefore been taken in kind, as is usually done by landlords when they receive rack-rent. Last year the Company found a considerable deficiency from the amount rated in the public accompts, although the grain was kept until the dearest season before it was sold. A man has this year undertaken to pay the whole in money, on condition that the instalments of payment are made at favourable seasons. He is enabled to do this, by letting the ground to the most advantage; whereas the government allowed the farmers 100 seeds for every *ten-poray-land*, and agreed to receive what was given them as the remainder of the crop, in which, of course, they were enormously defrauded. The farmers of *Vencata-cotay* make annual agreements for their lands, and frequently change their possessions; but no rice grounds are unoccupied.

Yatam of *Malayala*.

I observed one of the machines for raising water called a *Yatam*, which was made on a better construction than those above the *Ghats*. It was wrought by one man, who stood on a plank running parallel to the lever, and placed on one side; so that the side of the lever passed parallel to his face, and he was in no danger of being hurt by the bucket coming up between his legs, as happens

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where the man's face looks toward the end of the lever. The lever was made of a *Bamboo*, and the weight was a large stone fixed by a swivel. The bucket was made of an excavated piece of wood, shaped like the half of a cheshire cheese, and, when full of water, was lighter than the stone, which of course raised it without any exertion of the labourer. From a well 16 feet deep the man raised four buckets in a minute, each containing $209\frac{1}{10}$ cubical inches, or about 178 ale gallons in the hour.

Family of the *Tamuri Rájá*.

At night I was visited by the sixth *Rájá* of the *Tamuri* family, who, as well as the third in rank, resides at *Vencata-cotay*. The third declined receiving a visit from me; and perhaps thought that his coming, as his relation did, would be derogatory to his rank. The *Rájá* who visited me was a good looking man of about 50 years of age. His suite was not numerous, but very well dressed. He said, that *Shirnada*, the country in which we then were, formerly belonged to the *Rájá* of *Velater*. About 400 years ago that chief, having been attacked by the northern *Nairs*, applied for assistance to the *Tamuri*, and by ceding *Shirnada* obtained the protection of that prince. The fort of *Vencata* was afterwards built by the *Tamuris;* but, although it was much enlarged by the late *Sultan*, it is still a place of no importance. The *Rájás* of *Malabar*, indeed, do not seem to have ever trusted to fortifications for the defence of their country. The *Tamuri* family, during the time they suffered exile in the *Travancore* dominions, were chiefly supported by the liberality of its prince. There are at present about 25 *Tamburettis*, or ladies of this noble family, and the males are nearly about the same number.

Dec. 23. *Tiruvana-Angady*.

23d *December*,—I went a short journey to *Tiruvana-Angady*, and passed through a country similar to that which I saw yesterday. *Tiruvana-Angady* is a small *Moplay* town on the southern bank of a river which comes from *Irnada*, and in the rainy season is navigable with canoes for 32 miles upwards. It has no communication with the *Baypour (Vaypura)* river, as represented in Major Rennell's

map. *Tiruvana-Angady* is the place which in our maps is called *Tervanagary*, and is remarkable for the decisive victory which in the year 1790 Colonel Hartley gained in its neighbourhood over the forces of *Tippoo*. Near the *Angady*, or market, there is a small fort, which was erected by the *Sultan* round a *Colgum*, or palace, belonging to the *Tamuri Rájá*. Both have now fallen into ruins; and the *Tamuri*, since his return from exile, has not visited the place.

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Parum, or high-land of *Shirnada*.

In this district of *Shirnada* the *Parumba* land may be divided into three kinds. First, that which is fit for plantations. This kind of land pays a rent to the landlord, when cultivated for ginger, turmeric, plantains, or other articles that are not taxed: the rent amounts to 1 *Fanam* for every *Poray-candum*, of which nine-twenty-fourths go to government as land-tax. The second kind is land near the villages, which is cultivated once in three years for hill-rice, *Sesamum*, and *Shamay (Panicum miliare)*. It pays the same rent as the first kind, and the same share of this is taken as land-tax. The third kind is cultivated in the same manner; but, on account of its distance from the villages, poverty, or other causes, such as the officers who valued it having been corrupted, it pays no tax. To the landlord it ought to pay a fifth part of the produce; but some farmers refuse to give more than one seventh.

Cultivation of black-pepper, *Piper nigrum*.

I here examined the cultivators concerning the manner of raising the pepper vine. They say, that it does not thrive where planted close together; and therefore every man, in the garden near his house, has five or six trees only, which are intended as supports for this valuable plant. The *Mango* tree *(Mangifera)* is reckoned the best for the purpose, and its fruit is not injured by the pepper. The *Jack* tree *(Artocarpus integrifolia)* is sometimes employed; but its fruit is diminished in quantity, and is said to be injured in quality, the pepper communicating its flavour. This circumstance I have heard confirmed by Europeans; but I confess that I am still sceptical. The pepper-vine thrives also very well on the *Erythrina;*

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and, where there are no trees in the garden, this is preferred; as a large branch of it, being put in the ground in the rainy season, will in the course of a year be fit for receiving the vine; and in the mean time *Mango* trees may be raised, to serve after the *Erythrinas* have died; for the pepper vines, after bearing from six to fifteen years, kill this tree. The *Mango* tree ought to be at least twenty years old before any pepper vines are put on it. Suppose a *Mango* tree be fit for receiving the vine, the following is the manner in which that is planted. Between the 11th of June and the 12th of July, or at the commencement of the rainy season, the soil round the tree is dug; and a small bank, surrounding the root at a cubit's distance, is formed to confine the water. Then from 8 to 12 shoots of the vine, in proportion to the size of the tree, are laid down within the bank, and with two or three inches of one end standing up against the trunk. They are then covered with about an inch of fine mould; and, if any length of time occurs without rain, they must be watered; but this is seldom required. The shoots are about a cubit long. As the vines grow, they must be tied up to the tree, and rank weeds must be pulled up from near their roots. In the hot season they require to be watered with a pot; and at the commencement of the rainy season some leaves, ashes, and dung, must be spread on the ground near their roots. The pepper vine begins to bear at six years of age; in four years more it is in full perfection, and continues so for twenty years, when it dies. The young *amenta* begin to form at a feast called *Tiruvadaray Netvelly*, which is accompanied by a certain conjunction of the stars, the period of which none but astrologers can tell. It happened this year on the 17th of June. The beginning of the rainy season may therefore be considered as the flowering time of the pepper. When the fruit is intended for black pepper, it is not allowed to ripen; but is collected green, so soon as the berries become hard and firm, which happens between the 13th of December and the 11th of January. As the *amenta* come to a proper

maturity, they are pinched off by the fingers, placed on a mat, and rubbed with the hands and feet, until the berries separate from the stem. These are then spread out on mats, so that one does not lie upon another, and are dried two, or at the most three days in the sun; while at night they are collected in earthen jars, to keep them from the dew. The pepper is then put up in mat-bags, containing from 2 to 4 *Tolams*, or from 64 to 128 lb., and is fit for sale. The whole cost attending this process seems to be very trifling; and I have no doubt of Mr. Smee's allowance, of one-ninth of the produce, being fully adequate to defray the annual expense. The original cost of planting can hardly be brought to an accompt, it is so small. What is intended for white pepper, is allowed to become quite ripe. The berries are then red, and, the pulp being washed off, the white seed is dried for sale. The vines in this case are very apt to die, and in this province little or none is now made.

Tenures of pepper gardens.

The soil most esteemed here for pepper is red, and contains small stones. When a man wants to make a garden, he gives on a mortgage bond *(Cuey Canum)* from 15 to 40 *Fanams* to the landlord for three *Poray-candums* of a proper soil; and pays annually one *Fanam* for each *Poray-candum*, should he raise nothing in his garden but ginger, turmeric, plantains, *Mangoes*, or the like: but out of this the landlord pays the tax. Should the mortgagee plant any *Jack*, *Betel-nut*, or coco-nut trees, or pepper vines, as soon as these come into bearing, he must give an eighth part of the produce to the landlord, and pay the land-tax, which on pepper vines is 3 *Fanams* for every tree. This is only to be understood of the largest trees, supporting ten or twelve pepper vines. In the revenue accompts, a sufficient number of smaller trees are written as one, to make the tax equable, and not heavier than at the rate of three *Fanams* for a tree of the best quality. The three *Fanams* paid for the land-tax are new, of which $3\frac{1}{2}$ are equal to $1\frac{1}{3\frac{1}{2}}$ *Rupee*. But all other *Fanams* mentioned among the farmers are old, and equal to $\frac{1}{4}$ *Rupee*.

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Produce of the pepper vine.

The produce of the vines growing on a tree paying full revenue, the cultivators estimate at half a *Tolam*, or 16 lb.; but the collector's agent says, that this is the produce of a very ordinary tree; that a middling one produces three quarters of a *Tolam*, or 24 lb.; and that a good one in fact produces one *Tolam*, or 32 lb. The land-tax, the farmers acknowledge, amounts to about a third part of the produce. Now we shall see that they frequently sell their pepper at 15 old *Fanams* a *Tolam*, equal to $13\frac{1}{4}$ new ones; and by this estimate the average produce should be $\frac{9}{13\frac{1}{4}}$ parts of a *Tolam*, or about $21\frac{3}{4}$ lb. In the revenue accompts of Mr. Wye's districts, the number of trees bearing pepper vines is rated at 8484; and the average quantity exported is 4270 *Tolams*, which gives very nearly half a *Tolam*, or 16 lb. for the produce of each tree; to which we must add what is consumed in the country, and what is smuggled; and then $21\frac{3}{4}$ lb. will not, I am persuaded, be thought too great an allowance. Each tree actually producing pepper with vigour is, however, by no means to be conceived as producing that quantity. This is the produce of the best; and in the revenue accompts, four, or even five, are written as one, as I have before mentioned; still I am at a loss to explain the very small quantity of produce stated by Mr. Smee as the average of the trees in the southern and middle parts of *Malabar*. After rejecting all trees covered with old or young vines, as not productive, he estimates the average produce of the remainder at $4\frac{1}{2}$ lb. of dried pepper. I am still farther staggered by the quantity of pepper stated by Mr. Wye to be exported from the southern division alone, and which that gentleman has good opportunities of knowing: this he stated, in round numbers, at 800 *Candies* of 640 lb. Now the whole productive pepper vines, in the southern and middle division of *Malabar*, by Mr. Smee's valuation, amount to only 45,803, and at his average rate of produce could give only 322 *Candies*. By Mr. Wye's estimate of the export, each of them ought certainly to give more than 11 pounds, exclusive

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of country consumption, smuggling, and the number of vines in the middle division; but, as these are very few, they need not be taken into consideration. The obstacles, indeed, that are thrown in the way of the most careful investigation of the produce of plantations are such, as should cause a mode of taxation founded on a supposed knowledge of its amount to be totally rejected. The present tax is three *Fanams* for every vine; that is to say, for as many vines as produce nine *Fanams* worth of pepper. Mr. Smee, in consequence of his finding the produce so small, proposes to reduce the tax to one half levied on the actual number of productive vines, which, by his account, amount to about one fourth of the whole. The present tax is certainly not oppressive, as the cultivation is extending; and the cultivators, besides giving a considerable loan on mortgage to the landlord, can afford to give him one eighth part of the produce, and a small ground-rent for the garden. It will be seen, that the principal evils attached to the cultivators arise from their own want of prudence.

Trade in pepper.

Farmers of prudence and substance, such as the *Moplays* mostly are, receive no advances; but, when their pepper is fit for market, sell it to the best advantage, and deliver it at the sea-port towns at from 24 to 25 old *Vir'-Ráya Fanams* a *Tolam*, or at from 120 to 125 *Rupees* a *Candy* of 640 lb. The case, however, is very different with most of the *Hindus*, who in *Malabar* are as remarkable for a thoughtless profusion, as in other parts they are notoriously penurious. Between the 12th of June and the 13th of September, the Mussulman traders come from the coast, and enter into written agreements with those who are willing to receive advances. The cultivator agrees to deliver a certain quantity of pepper, for which the trader pays down immediately from 13 to 15 *Fanams* a *Tolam*, or from 65 to 75 *Rupees* a *Candy*. Should the cultivator, at the crop season, be unable to deliver the quantity for which he contracted, he must pay for the deficiency at the market price, which is generally 120 or 125 *Rupees* a *Candy*. As he is seldom or never able to

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pay this in cash, he gives a note of hand, engaging to deliver pepper for the amount of the price of the deficiency, at the rate of one *Tolam* for from 13 to 15 *Fanams;* but no interest is charged. Indeed, the profits of the trader are immense; as for an advance of 15 *Fanams* for six months, he gets a profit of ten; and it is evident that the risk is very small. Should a merchant not consent to receive the pepper, on account of its being bad, the cultivator may sell it to any person that he pleases, and give the proceeds to the merchant. Should these not amount to the market price, he gives a note of hand for the balance, which is considered as part of the advance for the next year. It is evidently the interest of the merchant to keep up a high nominal price, even should he, in selling the pepper to foreigners, be obliged to allow a large discount; for all the balances due by the farmer are paid at what is called the market price. The present market price is 125 *Rupees* a *Candy*, or 2*l.* 1*s.* 5*d.* a hundred-weight. It is sometimes so low as 100 *Rupees*, and at others rises to double that sum.

The cultivators, when questioned concerning the reason that can induce them to take up money on terms so disadvantageous, attribute it entirely to the land-tax; for every evil in *Malabar* is ascribed to that as its source. When asked, however, if they would be willing to pay in their pepper to the Company, in place of the land-tax, at 18 or 20 *Fanams* a *Tolam*, they start innumerable objections. At length I found out, that the real cause of the *Hindus* disposing of their pepper at this low rate, is a festival called *Wona*, which is celebrated in the month *Singhium*. At this the *Hindus* expend in drinking and finery every thing which they can raise. In their fits of intoxication there are constant scenes of fighting and abuse, which were a great source of revenue to the *Rájás*, as opening a way for law-suits and criminal prosecutions; and, with a view probably to encourage this source of revenue, the *Rájás* did not punish any murder that was committed during the festivities of *Wona;* but restricted themselves to fining those who gave abusive

Wona festival.

language, in the vehemence and indecency of which the *Hindus* exceed all other nations. It is hardly necessary to mention, that such an excuse for murder would not be admitted in the courts which are at present established in the country.

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Ginger and turmeric.

In the gardens of this neighbourhood much ginger and turmeric are cultivated. For this purpose a red soil, free from stones, is reckoned the best. Between the 11th of April and the 11th of May the garden is dug with the hoe, and formed into ridges, one cubit broad, one cubit high, and one cubit distant from each other, their sides being perpendicular. Two rows of the cuttings of ginger, or turmeric, are put in each ridge, and slightly covered with earth. The plot is then covered with bushes, to act as a manure, and to keep off the sun. Between the 12th of June and the 13th of July, the shoots appear above ground; and ten days afterwards the stems of the bushes are removed. Between every two rows of the plants, small twigs of trees are then put lengthwise and across, and weeds are removed by the hand. Between the 13th of December and the 11th of January, both roots are fit for pulling. Those intended for replanting are mixed with a little red mud, and immediately buried in a pit.

The ginger, intended for sale, is scraped with a knife to remove the outer skin; and, having been sprinkled with the ashes of cow-dung, is spread out on mats, and dried eight or ten days; when it is fit for sale.

The turmeric intended for sale, immediately after having been taken up, is boiled a whole day in water. The pieces that are large are then split, and for five or six days the whole is exposed on mats to the sun.

Cycas.

In the gardens and plantations toward the sea coast of the southern parts of *Malabar*, a species of *Cycas*, called *Indu* by the natives *(Todda Panna Hort: Mal:)*, is very common; but it grows spontaneously from the nuts that accidentally fall. The nuts are collected; and, having been dried for a month in the sun, are beaten in a

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mortar, and the kernels formed into a flour, which the natives eat, and call *Indum Podi.* It is reckoned superior to the flour prepared from the stem of the *Erimpanna (Caryota),* but it is only used by the poor, who between the 14th of July and the 13th of September are in danger of perishing. It is prepared during the former month, and cannot be preserved longer than the end of the latter.

Dec. 24.

24th *December.*—I set out with an intention of stopping at *Parupa-nada,* which in our maps is called *Perperengarde;* but, owing to the untowardness of my guides, I found, on my arrival there, that my tents had been carried on to *Vay-pura.* I was of course obliged to follow; but much of my baggage did not arrive until four in the afternoon, and the cattle were worn out with fatigue. From *Tiruvana Angady* to *Parupa-nada* is a plain, intersected in the middle by a deep creek running north and south, and forming the boundary between the *Shirnada* belonging to the *Tamuri,* and the dominions of a petty chief called the *Parupa-nada Rájá.* The country formerly belonging to this chief extended in a narrow tract along the sea side, from the river of *Calicut* to *Tannore.* At *Tannore* commenced another petty *Rájáship,* extending to the *Panyáni* river, and called *Bettutanada.* The family that governed this has become entirely extinct.

Appearance of the country.

The plain between *Tiruvana* and *Parupa-nada* consists partly of high *(Parum)* and partly of very low, or *Paddum* land. Both are at present very much neglected. The higher land, being no where steep, seems capable of being wholly converted into plantations, or of being cultivated with hill-rice, and other *dry-grains.* The *Paddum-land* is very low; and so much inundated, that a great part of it does not become dry until the hot season. It is said to be of a very good quality. The neglected state of agriculture is attributed to the want of people, and to the poverty of those who remain. Near the sea coast runs a narrow border, well filled with coco-nut gardens, and highly productive. Between this and the sea are barren downs, on which is situated the *Moplay* town *Parupa-nada.*

Parupa-nada.

This contains about 700 houses, and is the best built native town that I have yet seen. The houses are built of stone; and, were they better aired, would be comfortable even for Europeans. CHAPTER XII. Dec. 24.

The *Moplays* on the sea coast are a most industrious quiet people, and will scarcely acknowledge as brethren those ruffians who live in the interior part of the country, and who, having been let loose upon the *Nairs*, have acquired a blood-thirsty, rapacious disposition, which they justify by considering their adversaries as infidels. *Moplays.*

At some distance north from *Parupa-nada*, I passed over, in a very bad ferry boat, the mouth of the river which comes from *Tiruvana*; and about two miles farther, I crossed a still larger river, and came to *Vay-pura*, which in our maps is called *Baypour*. When compared with that at Madras, the surf on this coast is trifling; and, except where rocky head-lands run a little way into the sea, boats of any kind might, without danger, land on every part of the coast. I met people tracking boats along the shore, and observed men, who were walking on the outside of the surf, and pushing along floats of timber, while the water did not reach up to their shoulders. Rivers and surf.

The *Parupa-nada Rájá* resides at *Vay-pura*. He pretends to be of the *Kshatri* cast. Like those of the other noble families of *Malabar*, the ladies of this, who are called *Tamburettis*, cohabit with such of the *Namburis* as they choose, and all their male children are called *Unitamban*. The five eldest of these are called *Rájás*, each of whom has a peculiar title. That of the oldest, who is the head of the family, is *Taycapadu*. *Parupa-nada Rájá.*

Vay-pura was originally called north *Parupa-nada*. It is a small town, containing 120 houses of all casts, and has hardly any trade. The situation is most beautiful, on the north side of a river, where it enters the sea. Within, the river has deep water; but, like all those on the coast, has a bar at its mouth. At favourable seasons vessels drawing 14 feet may be floated over the bar by means of casks. Some projectors have here erected lofts, and other works *Vay-pura, and the Teak trade.*

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accommodated for building ships of war; for which purpose no place seems to be worse fitted. Small vessels, however, might be built to considerable advantage, a good deal of timber coming down the river, which affords fine situations for slips, or docks. The native collector says, that two years ago 10,000 *Teak* trees were brought down the river; but this was the produce of the forests for four years, none having been exported during that time. The native collector thinks, that between two and three thousand trees may be annually procured. The timber is cut on the *Ghats*, and conveyed by elephants to the part of the river which in the rainy season has water sufficient to float it. Many of the best trees are cut in two, to enable the elephants to drag them; and in this operation many of them are rent, or otherwise materially injured. *Teak* timber, of an ordinary quality for ship-building, sells at 9 or 10 *Rupees* a *Candy*, which measures $10\frac{3}{4}$ English cubical feet. The foot, therefore, costs from about 18 *d.* to 2 *s.* Choice timber sells as high as 16 *Rupees* a *Candy*, or $34\frac{3}{10}$ *d.* a cubical foot.

At *Vay-pura* some private gentlemen, with a view of supplying the dock yard at *Bombay* with *Teak* plank, have erected a saw mill; and a great deal of money has been expended in the project, with very little prospect of success. The power intended to have turned this mill was the wind; which appears to me to be by far too precarious a moving power for such heavy machinery.

No rice is exported from this river, the produce of the country being only sufficient for the maintenance of the inhabitants.

Dec. 25. Coco-nut plantations.

25th *December.*—I went a short journey to *Calicut*, and had a good road. By the way I crossed a river, much inferior to that at *Vay-pura*, but provided with excellent ferry-boats, composed of two canoes connected by a stage. The road passes through plantations of coco-nuts, some of which are thickly set; but in general, throughout the coast, not one half the number of trees are placed in the gardens that they are calculated to receive. Very little attention is any where paid to keep the gardens in order. The flat

Parumba lands near the sea are never cultivated for hill-rice, and pay no land-tax, unless for the trees that may be planted on them; as is the case indeed every where, except in *Shirnada*. A man who wants a house and garden gives for a piece of suitable ground from 15 to 20 *Fanams* on mortgage. If the landlord wishes to reassume this ground, which he may at any time do, he must not only repay the mortgage, but also pay the value of the house, of the fences, and of any trees that have been planted. If a man wants to raise a plantation of coco-nut trees, he gives from 60 to 90 *Fanams* on mortgage for 10 *Candies* of land, and gives the landlord annually a piece of cloth, and a bunch of plantains, as an acknowledgment of tenure. The *Candy* is 12 *Gajas* (of $28\frac{1}{8}$ inches each) square: so that the value of this kind of land, to the landlord, is from 8*l.* 4*s.* $0\frac{1}{2}$*d.* to 12*l.* 6*s.* $0\frac{3}{4}$*d.* an acre. The farmer or mortgagee is at the whole expense of making and cultivating the garden, and pays the tax, which is half a *Fanam* for each good tree, old and young trees being exempted, and three or four bad ones being rated as one in the revenue accompts. The trees are planted in such a straggling manner, that it is impossible to say what the amount of the tax on any given space really is. It is said, that 20 trees may be planted on one *Candy*, of which ten ought to be in full bearing, and to produce on an average 23 nuts, worth at the cutting season three fourths of a *Fanam;* but, if dried, worth one *Fanam*. The *Tiars* give a *Fanam* yearly for each tree, for liberty to extract the juice. This account was given me by the native revenue officer at *Vaypura*, while no cultivators were present; and if it be just, an acre would produce 1266 nuts, worth when green 1*l.* 0*s.* 6*d.*, and when dried 1*l.* 7*s.* 4*d.*; and if the tax were strictly exacted, an acre would pay to government 13*s.* 8*d.*; but in fact the tax is not levied by an actual enumeration, nor are the trees ever planted so closely. For at the rate stated here, the trees would be distant from each other only about 6 feet. The produce stated by the collector, as the average rate of one tree, is 30 per cent. less than Mr. Smee's

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estimate; probably owing to his including every tree of a bearing age good or bad, whereas Mr. Smee rejects all that do not bear more than 10 nuts. The very great difference between the estimates founded on the collector's information, and those founded on the information of the cultivators at *Shetuwai*, show the difficulty in this province of procuring statistical accounts. The account of the cultivators seems to agree best with the actual number of trees in any given space: that of the collector, with pains and industry, might perhaps be realised.

Dec. 26—30.

26th—30th *December*.—I remained at *Calicut* with Mr. Spencer, the president of the commission for the affairs of *Malabar*; and from that gentleman, and from Mr. Smee, the other commissioner, I received every assistance that I could require.

History of *Calicut*, or *Colicodu*.

The proper name of the place is *Colicodu*. When *Cheruman Permal* had divided *Malabar* among his nobles, and had no principality remaining to bestow on the ancestor of the *Tamuri*, he gave that chief his sword, with all the territory in which a cock crowing at a small temple here could be heard. This formed the original dominions of the *Tamuri*, and was called *Colicodu*, or the *cock-crowing*. This place continued to be the chief residence of the *Tamuri Rájás* until the Mussulman invasion, and became a very flourishing city, owing to the success that its lords had in war, and the encouragement which they gave to commerce. *Tippoo* destroyed the town, and removed its inhabitants to *Nelluru*, the name of which he changed to *Furruck-ábád*; for, like all the Mussulmans of India, he was a mighty changer of old Pagan names. Fifteen months after this forced emigration, the English conquered the province, and the inhabitants returned with great joy to their old place of residence. The town now contains about five thousand houses, and is fast recovering. Before its destruction by *Tippoo* its houses amounted to between six and seven thousand. Most of its inhabitants are *Moplays*.

History of *Kérala*.

The people here say, that the whole country between *Cape Comorin*

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and *Surat* is, in their books, divided into *Kéralam* and *Kankánam*; both of which were created by *Parasu-ráma*, and therefore ought not to be included in the fifty-six *Désams* of *Bharata-khanda*. Of their country the people here have a history, which is called *Kérala Ulpati*, and is written in a pure and old dialect of the *Ellacanum*, or poetical language. It is understood with great difficulty; many passages are interpreted in different ways; and some of the copies are said to differ essentially from others. The author is supposed to have been *Sankara Achárya*.

Manufacture of cotton cloth.

At this place Mr. Torin, the commercial resident, has been endeavouring to establish a manufacture of the plain cotton goods which are called *long cloth*. It is of 6 *Calls* fineness (that is to say, contains in its warp 744 threads), and the pieces are 72 cubits long, by 2¼ in width. The prices given to the weavers are 34, 32, and 30 gold *Fanams* for the piece, according to its quality. Very few are made of the first quality. The prices reduced to *Bombay Rupees*, and these valued at the mint price, are 18*s.* 6¼*d.*, 17*s.* 5¼*d.*, and 16*s.* 4¾*d.* The cloth is afterwards bleached, and sent to Europe on the Company's account. The weavers have been brought from the dominions of *Travancore* and *Cochi;* and Mr. Torin complains of their indolence, and want of honesty. They are 344 in number, but work 237 looms only, and bring in monthly 468 pieces of cloth. Within these two months Mr. Torin has established another manufactory of the same cloth at *Pali-ghat*, of which he has favourable expectations, as the cloths are better and cheaper. *Pali-ghat* is indeed the only part of the province that seems to be a fit situation for manufacturers, as its neighbourhood is the only part that affords a surplus of grain. The other parts of the province have, in their plantations more than sufficient employment for all the hands which they can support, and a constant demand for the produce of the labour which is so bestowed. I should, therefore, consider the introduction of manufactures as likely to prove injurious, by taking away labourers that might be more usefully employed. At present,

CHAPTER XII. Dec. 26—30. by far the greater part of the clothing that is used in the country is imported. In every district a few weavers make coarse cotton cloth for the use of the lower classes; and at *Tellichery* a few make table-cloths, napkins, and towels for the Europeans and native Portuguese.

Varnish. Some men of the *Panchála* tribe, which here is called *Peringullan*, paint and varnish wood by the following process. They take butter-milk, and boil it with a small quantity of quicklime, until strings form in the decoction and separate from the watery parts, which they decant. The stringy matter is then mixed with the paint, which has been well powdered. With these the wooden work is first painted; it is then allowed to dry for one day, and afterwards receives a coat of *Pundum*, which is the fresh juice of a tree called *Peini Maram*. The *Pundum* must be used while it is fresh, and will not keep for more than two or three days. After the first coat of *Pundum* has dried, another coat of paint is given, and that is followed by another of varnish. In the same manner leather may be painted and varnished. The varnish effectually resists the action of water. All my attempts, however, to find out the varnish-tree were vain.

Exports. *Calicut* and *Vay-pura* form a small district; and, unfortunately, I have received no answers to the statistical queries which I proposed relative to it; as has also been the case in the districts under the management of Mr. Drummond and Captain Osburn, which renders my account of *Malabar* much less complete than I expected to make it. From Mr. Smee's valuable communications I am persuaded, that from the southern and middle divisions of *Malabar* at least the following quantity of the produce of plantations is annually exported.

			Rupees.
Coco-nuts	-	38,458 thousand, at 13½ *Rupees*, -	519,048
Betel-nuts	-	58,392 thousand, at 3 *Fanams*, -	32,916
Black pepper	-	340 *Candies*, at 125 *Rupees*, -	42,500
		Rupees	6,14,464

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Besides large quantities of ginger and turmeric; and I have already mentioned, that the quantity of black pepper is more than double that here stated.

In the APPENDIX at the end of the Third Volume, will be found a report, made by the commercial resident at *Calicut*, on the province having been ceded to the Company; which will throw considerable light on the trade of the country.

Produce, seed, rent, and land-tax of rice-land.

Having procured an intelligent native officer of revenue, I went with him to a rice field belonging to a man of substance; and, having measured this, found that it contained 27,893 square feet. The *Poray* here contains 607$\frac{1}{2}$ cubical inches. These preparatory measures having been taken, I, in presence of the native officer, obtained the following account from the proprietor of the field, and believe that what he stated may be depended on as true.

The field which I measured was of a poor soil, and in the revenue accompts was called a *five-Poray-land;* but in fact it sows 6 *Porays* in the first crop, and 5 *Porays* in the second. The person to whom it has been mortgaged stated its usual produce to be 36 *Porays* in the first crop, and 15 *Porays* in the second, in all 51 *Porays.*

This, he says, is disposed of as follows:

	Porays.
Negadi, or land-tax - - - - -	15
Charges of collection - - - -	1$\frac{1}{2}$
Seed - - - - - -	11
Slaves, and other stock - - - -	11
Landlord - - - - - -	2$\frac{1}{4}$
Interest of 25 *Fanams,* which he has given on mortgage, and which ought to be considered as part of the landlord's profit - - - - -	1$\frac{1}{4}$
Farmer's profit - - - - -	9
Porays -	51

On the sea-coast the *Poray* at harvest time is worth one *Fanam.* Reducing the measures and money, we shall have, at this rate, for every acre,

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	Produce. Bushels.	Value. £.	s.	d
Negadi, or land-tax - -	6,619	0	12	9½
Charges of collection - -	0,6619	0	1	3¼
Seed - - - -	4,8639	0	9	4½
Expense of cultivation - -	4,8639	0	9	4½
Landlord - - - -	0,9928	0	1	11
Interest for money advanced to ditto	0,5516	0	1	0¾
Cultivator's profit - - -	3,9713	0	7	8
Total of two crops - Bushels	22½	£. 2	3	5½

If the same extent of ground had been of the best quality, these people say, it would have been rated in the public accompts at six *Porays*, and would produce in the first crop 48 *Porays*, and in the second crop 35 *Porays*, in all 83 *Porays*. This would be divided as follows:

	On the field.	By the Acre.			
	Porays.	Bushels and dec. parts.	Value. .	s.	d.
Tax, and charges of collection -	19¼	8,715	0	16	10
Seed - - - - - -	11	4,8639	0	9	4½
Charges of cultivation - -	11	4,8639	0	9	4½
Interest of mortgage - -	1¼	0,5516	0	1	0¼
Landlord - - - - - -	10	4,4126	0	8	6¼
Cultivator's gain - - -	30	13,2378	1	5	6¼
Total - -	83	39,6448	3	10	8¼

Extent of the *Poray-candum.*

The *Poray-candum* here is from 4,649 to 5,578 square feet, according to the crop; average, 5,113. If the seed be also sown of the same thickness at *Pali-ghat*, *Angada-puram*, and *Chowgaut*, where the *Poray* is larger, and of which I think there is no reason to doubt, the *Poray-candum* at these places ought to contain

5893 square feet. Mr. Warden's estimate makes it only 3364; my estimate at *Pali-ghat* made it 7622; Mr. Drummond's estimate made it 5827, which approaches so near what I here found to be the case, that I consider it as the real extent, and that the average quantity of seed sown on an acre is a little less than 2¼ bushels.

Rice-land of *Malabar* really valuable.

Owing to the comparative thickness of the seed in *Malabar*, with that in the eastern parts of India, the crops appear very poor, when the increase on each seed sown is only mentioned; from 5 to 10 seeds being what is usually allowed as the produce in *Malabar*, while 40, and even 60 fold, are frequently mentioned in the *Carnatic*. But the rice land of *Malabar* is really very valuable, and bears actually heavier crops than most of the country toward the east. The soil near the sea is poorer than in the interior of the province; but the grain being higher priced at the sea side, makes the value of the crops in both parts nearly the same.

Salt manufacture.

All along the coast of *Malabar* salt is made by the natural evaporation of the sea water. In order to be satisfied concerning this subject, I first examined a set of people called *Vaytuvans*, who are those by whom the salt is made. Their account is as follows.

Account given by the *Vaytuvans*, or manufacturers.

Low grounds near the inlets from the sea, and surrounded by channels into which the tide flows, are chosen for the purpose. Between February the 10th and March the 11th, the preparatory steps must be finished. First, the tide is excluded, by damming up at low water the mouth of the channels. The field is then cleaned, by removing a slippery green *conferva* that grows in the rainy season. It is then ploughed twice, and the roots of any herbs that grow on it are carefully removed. The field is then allowed 20 days to dry, and the clods are broken with a wooden stake. The channels for admitting the tide are then cleared, and filled with sand, to be used as afterwards mentioned. Part of it is mixed with ooze, and of these materials is formed a square plot, or one in form of a parallelogram, which is raised about a foot above the level of the field, well smoothed, and then every day for a month rubbed with a stone,

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until it becomes solid and hard. It is divided into small squares, eight or ten cubits in extent, and surrounded by small banks of the same materials. This plot is used for evaporating the brine. It is surrounded by several small mounds, which are formed of sand taken from the channels and mixed with a little mud. In the summit of each is formed a small cistern, about a cubit in diameter. From the bottom of this a *Bamboo* spout conveys any water that may be put in the cistern, to a reservoir which is formed at the bottom of the mound. The whole field is then smoothed; and about the 12th of March the dams are removed from the channels, and the tides are daily admitted. Some earth is every morning scraped from the surface of the field, and with this the cisterns in the mounds are filled. Water from the channels is then poured upon this earth, and filters gradually through the pipe into the reservoir. A clear brine is thus procured, with which every day at noon the small squares in the plot are filled, to about the depth of a quarter of an inch. In the course of the afternoon the water is evaporated by the sun and wind, the salt remains quite dry, and is collected in the evening. This operation is repeated daily for 92 days, from the 12th of March to the 11th of June inclusive. The salt made in the beginning of the season is the best and cleanest. The grain is large and cubical; but it is never white, and has a strong attraction for water.

A field thus fitted for making salt is called *Cullum*, and each square in the evaporating plot is called a *Canny*. The *Canny* ought to be twelve feet long by eight broad; and six of them pay one *Fanam* as land-tax. If they happen to be larger or smaller than the proper measure, they are taxed accordingly. A family of *Vaytuvans* can manage 40 *Cannies*. The proprietor of the field, whether he be a landlord *(Jenmcar)* or a mortgagee *(Canumcar)*, either hires a *Vaytuvan* to work it, or employs his own slaves. In the former case, the *Vaytuvan*, during the two months that he is employed in the preparatory steps, receives half a new *Vir'-Ráya Fanam* a

day, his wife gets a quarter of a *Fanam*, and the proprietor finds the ploughs and cattle. When the salt begins to be made, the *Vaytuvan* receives two-thirds, and the proprietor one-third, of the produce. A field of 40 *Cannies* produces daily 80 *Puddies*, of 121¼ cubical inches, which at the time sells for from 20 to 30 *Puddies* for the *Fanam*. Allowing, therefore, that a man and woman manage a field of 40 *Cannies*, and that the salt is sold at the cheapest, in 92 days evaporation they would make 7360 *Puddies* of salt, or 416 bushels; but I am inclined to think, that, although the *Vaytuvan* did not mention this circumstance, an allowance must be made for rainy days that occasionally happen at this season, and must interrupt the process. I allow therefore only 84 days evaporation; producing 6720 *Puddies*, or almost 380 bushels of salt, worth 224 *Fanams*, or 64 *Bombay Rupees*, or 6*l.* 2*s.* 3*d.* Of this the *Vaytuvan* receives two-thirds, or 4*l.* 1*s.* 6*d.*; to which if we add the 40 *Fanams* that he and his wife receive in the preparatory months, their wages, for the five months of the salt-making season, we shall find amount to 189⅓ *Fanams*, or 5*l.* 3*s.* 4*d.*

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On the same data the proprietor's share will be worth 2*l.* 0*s.* 10*d.* from which deduct 6⅔ *Fanams* as land-tax, and there will remain 1*l.* 17*s.* 2½*d.* as profit; against which the only charges are, the 40 *Fanams* given to the *Vaytuvans*, and the use of a plough for a few days. When the salt sells high, one half must be added to all these gains.

Account given by a proprietor.

A person who has obtained thirteen salt fields, containing 360 *Cannies*, by advancing money on mortgage, says, that to work them he employs ten men and ten women of the *Vaytuvan* cast; which makes the quantity of work performed by each a tenth less than the statement of the *Vaytuvans* does. During the two preparatory months he gives each man and his wife half a *Fanam* only a day; and that partly in cash, partly in provisions. The *Vaytuvans* get two thirds of the produce. He agrees with them in the daily quantity

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of salt produced from one *Canny*, namely four *Nallis*, or two *Puddies;* but he says that the productive season lasts only 75 days. I shall however, as before, consider 84 days as a just medium between his account and that of the *Vaytuvans;* and then the produce of his estate will be annually 1,20960 *Nallis*, or 3428 bushels, worth at the cheapest season 2016 *Fanams*. This is divided as follows:

		Fanams.
To the *Vaytuvan*, for two months wages - - -		300
for two thirds of produce - -		1344
Land-tax - - - - - - -		60
To the landlord, interest of 400 *Fanams* advanced by the landholder - - -	30	
Paid annually - - -	20	
		50
Profit to the landholder - - - - -		262
Fanams		2016

At this rate, the bushel of salt is worth $\frac{1461}{10000}$ of a penny.

Customs of the *Vaytuvans.*

These *Vaytuvans* are not considered as *Súdras*, and consequently are of the impure tribes called *Panchumas*. They are of *Malayala* extraction. Besides making salt, they quarry stones, dig tanks, build mud walls; and, from the outer husk of the coco-nut, their women twist *Coir* rope. They can all eat together and intermarry. They have no hereditary chiefs, and refer all their disputes to the officers of government. A man marries only one wife, who lives in his family, and whose children are considered as his heirs. The ancient custom permitted a man to put his wife to death, if he detected her in adultery; but at present the cuckold contents himself with drubbing his wanton spouse. The reason of this seems to be, that none of the higher casts will touch a *Vaytuvan* woman, and none of the slaves can approach her house; so that she has no

opportunity of being corrupted, except by a man of the same cast; and a slip with such a person, among the lower *Hindus*, is looked upon as a very trivial matter. Some few of the *Vaytuvans* can read a little. They bury the dead, and seem to have no knowledge of a future life. As the deity peculiar to their cast, they worship *Nedamaly Bhagawatí*, a goddess who is represented by a stone, which is placed in a hut formed of coco-nut leaves. In March, an annual festival is celebrated in honour of this idol. It lasts three days, during which a lamp is burned in the rude temple, and a fowl is sacrificed before the stone. The most venerable of the cast then takes some boiled rice, carries it thrice round the temple, offers it to the goddess, and divides it among the people, who eat it with reverence, considering it as holy. The *Vaytuvans* are not permitted to approach the temples of the great gods; but may send offerings by the hands of a person of pure descent. They have no *Guru*, *Purôhita*, nor priest of any kind.

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31st *December*.—During the night there has been heavy rain, which at this season is very uncommon. In the morning I went to *Coduwully*, which by us is commonly called *Cadolly*.

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The country through which I passed resembles that to the southward. Some of the hills are covered with wood. The road has been formed, so as to enable artillery to pass; but in some places it is very steep.

Face of the country.

Some troops having formerly been stationed at *Coduwully*, I found at it a cottage which an officer had built. A small street of shops *(Bazar)* had then been established at the place; but, from want of employment, the people have removed. It is situated in *Tamarachery Nada*, a district that formerly belonged to the *Cotay-hutty*, or *Pychi Rájá*. In this family the four eldest males assume the title of *Rájá*. The three eldest, like the other *Rájás* of *Malabar*, fled into *Travancore*, to escape from the violence of the late *Sultan*; but the fourth remained behind in defiance of the Mussulman, at times

Cotay-hutty, or *Pychi Rájá*.

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being forced to retire into the woods, and again at times issuing forth with a band of determined *Nairs*, overthrowing the troops of the *Sultan*, and levying contributions to a great extent. On the arrival of the English army, this chief joined them with a considerable body of *Nairs*, and expected perhaps that he would have been favoured in the same manner as the *Coorg Rájá* was. In this, however, he was disappointed. The eldest male of the house, indeed, to avoid disturbance, would not quit *Travancore;* but the two next in succession, and whose claim to the dominions of the house was undoubtedly founded in law, returned, and requested that they might be put on the same footing with the other *Rájás* of *Malabar*, by having the management of the territory that formerly belonged to their family. This was accordingly granted, so far as was practicable, and they are now in quiet possession of the fifth of the revenue in the *Nadas*, or districts of *Curumbara* and *Tamarachery*. This gave great offence to the fourth *Rájá*, who considered himself entitled to the whole, by his seniors having deserted their country, whilst he stood gallantly on the defensive. Besides, he was of a bold ambitious spirit, and nothing would induce him to give up the jurisdiction and sovereignty of an independent prince. Of course he is now in a state of open rebellion, and lives exactly on the same footing with the English that he did with *Tippoo;* and a warfare has ensued, in which our loss has been very great, and the country has been terribly desolated. He is commonly called the *Pychi Rájá*, from a house of that name, which was the principal residence of the family. He is also called the *Cotay-hutty (Cotioté)*, or *Wynatil Rájá*, from the two districts that are now in his possession. The former is in *Malabar*, and the latter forms a part of *Karnáta* above the *Ghats*, and in our maps is called *Wynaad*. Both parties have been long tired of this destructive war; and some time ago the *Rájá* offered to give up the whole country of which he was in possession, if he should be secured in the independent government of such a portion of the

Wynaad as would equal in revenue the fifth of his whole territory. This has not been accepted, nor have the military operations been ever carried on with that vigour which the case would require. The breach is too wide to be now closed; and the most vigorous steps would be necessary, as every *Nair* in *Malayala* secretly wishes success to the insurgents. CHAPTER XII. Dec. 31.

Population. From the returns made by Mr. Baber, who has obligingly sent answers to my queries, it would appear, that in the three neighbouring districts of *Kerakum-puram*, *Kadakum-puram*, and *Poraway* or *Polaway*, there are 7331 houses, inhabited by 26332 persons, which is at the rate only of $3\frac{5918}{10000}$ to a house. In this I suspect there is some error. Besides, there are 4765 slaves, making the population in all 31097, of whom there are,

Men adult	-	11,112	
Children	-	4,431	
Males, total	-		15,543
Females adult	-	10,834	
Children	- -	4,481	
Females, total	-		15,315
General total	-		30,858.

It appears to me, that these tables of inhabitants have been made up by the native officers without attention. In twenty-six houses of *Puttar Bráhmans*, for instance, there are stated to be only 20 inhabitants, and these are all male adults. This last circumstance, however, is not impossible; as the *Puttar Bráhmans* here are generally persons who come from the countries to the eastward, and subsist upon charity; while they occupy one chamber in the house of a *Nair*, whose women administer to all the wants of the *Puttar Bráhmans.*

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sacred man. But farther, as may be seen above, the total of the inhabitants, as stated, does not agree with the amount of the particulars.

Rice ground.

The country, in Mr. Baber's opinion, is thinly inhabited, and much of the arable land is unoccupied, especially in the eastern or interior parts of the districts. Owing to the inundations of the *Ellatoor* and *Vaypura* rivers, a considerable quantity of the low rice ground is waste. Mr. Baber having demanded from every proprietor a return of his arable lands, the amount of what they gave in is 49,036 *Porays* sowing of *Paddum* rice, and no hill rice is sown in these districts. Mr. Smee's valuation states the *Porays* of seed required to sow these districts at 88,227; which is probably not over-rated, and which shows how little dependance, in such cases, ought to be put on the assertions of the proprietors. According to Mr. Smee, the soil of these districts is not more productive than the sandy levels near the sea; and the average produce, deducting one-tenth, is $4\frac{6}{8}$ seeds, making the average gross produce rather more than $5\frac{1}{4}$ *Porays* from one *Poray-candum*, or $12\frac{8}{10}$ bushels an acre, for each crop; which agrees very well with the statement given by the cultivators at *Calicut*. I am rather surprised, however, at the low average of these three districts under Mr. Baber; as a considerable proportion of them is at a distance from the sea, where in general the lands are more fertile.

Plantations.

Mr. Baber, in a similar manner, procured an account of the taxable trees raised in the plantations of his districts, which I here contrast with Mr. Smee's estimate.

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	Mr. Baber.		Mr. Smee.	
	Old and young.	Bearing.	Exempted.	Taxable.
Coco-nut palms - -	293,576	153,302	325,958	269,025
Betel-nut ditto - -	158,440	76,788	266,128	153,848
Jack trees - - -	62,573	19,120	78,832	26,538
Pepper vines - -	5,038	1,176	5,442	2,617
Brab palms - - -	6,847	0,168		

Sapan-wood.

In the gardens of these districts, as well as in all those toward the south of the province, a considerable number of *Chapingum*, or *Sapan-wood* trees *(Guilandina Sapan)*, is reared. This tree affords a good dye; and, as it is exempted from tax, it would appear that no farther encouragement was necessary for raising it. No place would seem to be more favourable for the purpose, as it grows without any care, and water carriage is at hand for its transportation; yet the quantity raised is not great.

Although these districts are separated from the sea by the territory annexed to *Calicut*, yet the low lands near the rivers admit of a considerable quantity of salt being made in them. According to the returns made to Mr. Baber, and which are probably under-rated by at least one-third, there are employed in this way 4627 *Cannies* of ground. This pays to government 961$\frac{1}{4}$ *Fanams* a year as land-tax, which is 26*l.* 4*s.* 7*d.* According to the *Vaytuvan's* account, this ground will employ 147 families, and produce 989,000 *Puddies*, or 55,891$\frac{1}{4}$ bushels, worth 32,975 *Fanams*, or 450*l.* 0*s.* 10*d.* Of this sum,

The salt-makers get	-	*Fanams* 27,865
The owners of the soil	- -	4,149
The government	- -	961

Live stock.

In these districts the live stock, according to the returns made to Mr. Baber, is as follows:

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Kind.	Male.		Female.	
	Young.	Full grown.	Young.	Full grown.
Large breed of the ox kind - - -	- -	56		
Small country breed of ditto - - -	898	4021	2339	4101
Buffaloes - - -	5	113	25	9

This stock is able to work 2000 ploughs, each of which cultivates above 40 *Porays* of seed sowing.

Teak-wood.

Mr. Baber states, that a very considerable quantity of *Teak-wood* is procured annually from a forest called *Tirumunbady;* and that the district of *Porawaye* has many young plants of this valuable tree, but scarcely any fit for cutting. The other produce of the forests is of inconsiderable value; and the whole of the wax and honey is consumed by the natives.

The unhappy disturbances prevailing in the country have put a total stop to the trade with the dominions of the *Rájá* of *Mysore.*

Codda panna, or *Corypha umbraculifera.*

In the gardens of the middle division of *Malabar* are raised from the seed many of the palms which by the natives are called *Codda Panna (Corypha umbraculifera).* The leaves are the most useful part of this palm, and serve for thatch, for umbrellas, and as paper; but by no means correspond with the accounts given by travellers in *Ceylon.* The thatch is reckoned inferior to that of the coco-nut; as it requires to be changed twice a year, whereas the coco-nut leaves last twelve months. In books this leaf is very durable, and all valuable manuscripts are written on the leaves *(Ollas)* of the *Codda Panna;* those of the *Ampanna,* or *Borassus,* being in this country used only for accompts. Some fine palms of the *Corypha* produce folds five inches wide, and these sell very high. This palm produces annually ten leaves, and flowers at the age of twenty

years. Immediately after having ripened its fruit, it dies; but in general it is not permitted to live so long, but is cut down when it is fifteen years old. The pith is beaten, like that of the *Caryota*, and a powder is extracted, which is eaten by all ranks of people. One tree produces 10 *Puddies*, or rather more than $2\frac{1}{4}$ pecks. It is chiefly used in times of scarcity, that is, between the 14th of July and the 13th of August; for the people are in general so improvident, that every year by this time, their stock of grain is nearly exhausted, and sells for almost double the price that is demanded immediately after harvest.

CHAPTER XIII.

JOURNEY THROUGH THE NORTHERN PART OF MALABAR.

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Jan. 1, 1801. Inland *Moplays.*

JANUARY 1st, 1801.—In the morning I went nine miles to *Tamarachery.* The country resembles that which I came through yesterday, but much of it is waste. At *Tamarachery* there was a house belonging to the *Pychi Rájás;* and as it was on the road to one of the principal passes leading up to *Karnáta, Tippoo* established in its neighbourhood a strong colony of the ruffian *Moplays;* and, until lately, a constant petty warfare has been continued between them and the *Nairs.* A detachment of *Sepoys* are now in possession of the house, and preserve the peace; but so odious are they to the Mussulmans, who are the only traders in the country, that it is with great difficulty that they can purchase the absolute necessaries of life. The town *(Bazar)* here contains about fifty shops. During the Mussulman government it had good trade; but the rebellion in *Wynaad* has put a stop to all legal commerce. I believe, however, that there is much smuggling.

Rice-ground and land-tax.

Almost the whole of the lands in the *Tamarachery* district now belong to *Moplay* mortgagees *(Canumcars),* who give nothing to the original lords of the soil. These *Moplays* say, that about one half of their low rice ground *(Dhanmurry)* produces annually two crops, and that the increase in one crop varies from 5 to 10 seeds, which I estimate at from $9\frac{1}{10}$ to $18\frac{2}{10}$ bushels an acre. They say also, that when they sell the rice at the cheap season, in order to pay the land-tax, it requires about three-sixteenths of the produce to enable them to discharge the amount.

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Tax on *Parum* land.

Hill-rice, *Ellu (Sesamum)*, *Shamay (Panicum miliare)*, and *Pyru* (legumes), are cultivated on the high *(Parum)* land, and pay three tenths of the produce; which is estimated by the landholder, the native collector, and the *Menon*, or village accomptant.

Slaves.

The daily allowance here established for slaves is of rough rice,

		Cubical inches.		Bushels.
To able bodied men, -	6 *Nallis* heaped	= 148½,	which is yearly	25⅕
To able bodied women -	6 *Nallis* streaked	= 103½,	ditto	17½
To old persons and children,	3 *Nallis* heaped	= 74¼,	ditto	12 6/10

The average, allowing one child and one old person to every two men and two women in the prime of age, will be 18 4/10 bushels, of which one half is husks. When the scarcity that usually happens every year prevails, they get part of their allowance in *Yams (Dioscoreas)*, *Jacks (Artocarpus)*, or plantains *(Musa)*. When harvest is over, they receive each, according to their activity, a present of 3 or 4 *Porays* of rough rice, or from 1 to 1 4/10 bushel; which will make the annual average about 9½ bushels of rice. Their masters give them also some salt, oil, and pepper, and they are allowed to keep fowls. Each person has annually three pieces of cloth. The slaves say, what indeed cannot be doubted, that they are much better used by their own masters, than when they are let out on mortgage *(Canum)*, or hire *(Patum)*.

Customs of the *Poliar*, or *Churmun*, properly so called.

In some parts of the province, *Churmun* is a term applied to slaves in general, whatever their cast may be; but it is in some other parts confined to a peculiar cast, who are also called *Polian*, or in the plural *Poliar*. Even among these wretched creatures the pride of cast has full influence; and if a *Churmun*, or *Polian*, be touched by a slave of the *Parian* tribe, he is defiled, and must wash his head, and pray. The *Poliar* are divided into many different families or clans; but all these can eat together, and intermarry. They have no hereditary chiefs; all the business of the cast is settled in assemblies of their elders. These never excommunicate any person, but they impose fines. The *Poliar*, when they can

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procure such dainties, eat animal food, and drink spirituous liquors; but they reject carrion. None of them can read. When a *Polian* wishes to marry, he applies to his master, who is bound to defray the expense. He gives 7 *Fanams* to the girl's master, 5 *Fanams* to her parents, 1 *Fanam* worth of cloth to the bride, 1½ *Fanam's* worth of cloth to the bridegroom, and about 10 *Fanams* for the marriage-feast; in all 24½ *Fanams*, or 16*s.* 1½*d.* The ceremony consists in putting a ring on the bride's finger. When a man becomes tired of his wife, and she gives her consent, he may sell her to any other person who will pay back the expense incurred at the marriage. A woman may leave her husband when she pleases. If she choose to go back to the hut of her parents, they and their master must pay back what they received for her; but, if she choose to cohabit with any other man, the whole expense is lost. They are, however, seldom guilty of this injustice. The husband, so long as his wife remains with him, has an undoubted right to give her corporal punishment, should she be unfaithful; but this right is exercised with great discretion, lest she should run away with her paramour. The wife works for her husband's master, who must maintain her, and her children until they are able to work: the eldest son then belongs to him, but all the other children belong to their mother's master, and return to the hut of her parents. The goddess worshipped by the *Poliar* is named *Paradévatá*, and is represented by a stone, which is placed, in the open air, on a mound like an altar. The priest *(Pujári)* is a *Polian*, and, at a feast celebrated on the commencement of the new year, offers up sacrifices of fowls, fruit, spirituous liquor, &c. If these offerings are omitted, the goddess inflicts sickness; but she may be appeased by prayer alone, should the poverty of her votary render him unable to bestow the offerings. The *Poliar* believe, that after death the spirits of mankind exist, and have an influence over human affairs. The spirits of good men are called *Ericapeny*, and those of bad men are called *Culi*. The former are most powerful: but sacrifices and offerings are made to both; to the one for

protection, to the other for mercy. These sacrifices and offerings are directed by a person named *Maratan*, or *Caladi*, who, by placing small shells *(Cowries)* in certain positions, pretends to know the spirit to whom the votary ought to address his petition. Although these *Maratans* are slaves, and must work for their masters as usual, the office is hereditary. Their sisters sons succeed to the dignity. Except these, the *Poliars* have nothing like priests, and never give any thing to the *Bráhmans*, nor do they ever pray to the great gods whom that sect worship. Among them they have no *Dáseris*, or other such idle vagabonds. Old persons, when they die, are burned; young persons are buried.

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Customs of the *Pariar* of *Malayala*.

The *Parian*, or in the plural the *Pariar*, belong to a tribe of *Malayala*, all of whom are slaves. In all the countries where the *Tamul* language prevails, a tribe of the same name is common; but the customs of the two casts are by no means the same. In *Malabar* there are three kinds of this tribe; the *Parian* properly so called, the *Perum Parian*, and the *Mutruva Parian*. It is of the first that I here treat. They pretend to be higher than the *Perum Parian*, but acknowledge the superiority of even the *Niadis*. This cast eat carrion, and even beef; so that they are looked upon as equally impure with Mussulmans or Christians; and they may lawfully drink spirituous liquors. Their marriages are similar to those of the *Polian;* but all the children belong to the master of the husband. The deity of this cast is named *Mariti;* and after death the spirits of good men are supposed to become like God, while those of bad men become *Culis,* or devils. There are small temples, or rather huts, in which a stone is placed to represent *Mariti.* Individuals, at an annual festival, present the idol with offerings of fruit, and bloody sacrifices. There is a kind of priest belonging to this tribe. He is called *Velatun Parian;* but is of a different race; of what kind, however, my informants cannot say. He lives at *Cadeaturu,* four miles from hence, is married, and his office is hereditary. He seems to be a juggler, like the *Caladi* of the *Poliar.* When any

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sickness happens he is consulted, and informs the votary what spirit must be invoked, whether the protection of *Mariti* ought to be solicited, or the wrath of a *Culi* appeased. This he determines by looking at a heap of rice. He also possesses a jurisdiction over the *Parian* in all matters of cast, and punishes all transgressors by fine; but he never proceeds to such an extremity as to excommunicate.

Upucuti.

In the woods here there is a bush, with a pellated leaf, called *Upucuti*. Never having met with the fructification, I have been unable to class it; but it has a strong resemblance in habit to the *Jatropha Curcas*. It contains a viscid juice, which is very tenacious when dry, and the natives use it in place of wafers for sealing their letters.

Jan. 2. Face of the country.

2d *January*.—We had a very rainy night. In the morning I went an easy stage to *Walachery Cotay*, where Mr. Coward the collector has an office, and where that gentleman was so obliging as to come and meet me. On the way I crossed a small river, which runs into the sea at *Pynadacara*, and forms the boundary between *Tamarachery* and *Curumbara Nada*. The country through which I passed to-day is naturally fine, and the high lands are not so steep as in most of the inland parts of *Malabar*; but the greater part both of them and of the rice fields is now overgrown with forest trees. Owing to the persecution of the *Hindus* by the late *Sultan*, and to the incessant warfare between them and the *Moplays* of *Tamarachery*, one fourth of the rice fields in *Curumbara Nada* is estimated to be waste. The inhabitants of *Curumbara* are chiefly *Nairs* and *Tiars*, and live, as usual, in houses which are scattered among their plantations. At *Walachery* there is neither village nor market.

Iron mines.

At no great distance from the office, much iron-ore, resembling that of *Angada-puram*, is found in a hill called *Poicun*. It is smelted exactly in the same manner as already described at *Angada-puram*. A man who smelts it says, that he puts into his furnace 390 *Nallis* of the washed ore, which costs

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6 old *Vir'-Ráya Fanams*, or 1½ *Bombay Rupee*. Add
6 ditto for charcoal.
4 ditto to four bellows-men.
2 ditto to the man who manages the furnace.
3 ditto for rice for the workmen during the three days that the operation lasts.

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21 total expense in old *Fanams*, worth seven-eighths of a new *Fanam*, of which 3½ are equal to a *Madras Rupee*.

The produce of the smelting is 6 *Tulams* of iron, worth 8 or 9 *Fanams* a *Tulam*, or from 48 to 54 *Fanams*. This agrees so well with an account given to Mr. Coward by another person, that it may be considered as accurate. The iron is better than that made at *Angada-puram*. The landlords in general prepare the ore by their own slaves, and sell it to the smelters ready for the furnace. The people who make the charcoal pay a trifle to the landlord for permission to carry on their business.

Size of farms.

In *Curumbara Nada*, there are some great farmers, who have 10 ploughs, 20 oxen, 20 male and female slaves, 10 male and female *Tiar* servants, and 25 milch cows. The number of such in the whole district does not exceed ten or twelve, and by far the greater number have only one or two ploughs. Almost all the farmers *(Cudians)* have slaves; they are a very few only that are reduced to the necessity of labouring with their own hands.

Slaves.

Male slaves sell at from 20 to 60 old *Vir'-Ráya Fanams*, or from 9*s.* 6½*d.* to 28*s.* 8*d.*: women sell at only one half of this low price. The difference of cast makes no variation in the value; although the children of different casts are not divided in the same manner. A male slave lets at four *Fanams* a year, and a woman at half as much, the person who hires them providing for their maintenance.

Customs of the *Panian*.

In the parts of this district that are situated toward the frontier of *Wynaad*, live a rude tribe called *Panian*. They dwell in small villages, each consisting of four or five huts, which are called

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Madum. They are not called *Churmun*, or slaves, but are in fact such, and belong to *Tamburans*, or lords, who give them daily subsistence, and exact daily labour, precisely in the same manner, and of the same kind, as is done with slaves. Disputes that happen to arise among them are settled by their masters; who must also furnish money to procure wives for their *Panians.* A wife and the marriage expenses amount to 25 *Fanams.* They take only one wife; but, whenever either party pleases, the marriage may be dissolved: all the children belong to the husband's master. This cast eat all kinds of animal food and carrion, except beef, and may lawfully drink spirituous liquors. They bury the dead without any particular ceremony; and suppose, that after death the spirits of good men become *Culis*, while those of bad men are called *Paynays.* Both these kinds of spirits live in the forests, but give men no sort of trouble, and of course receive no worship. The deity of this cast is called *Cutichatun;* which, among the *Bráhmans* and *Nairs*, signifies a juggler. The *Panian* have no visible representation of their god; but make offerings of rice, coco-nuts, and spirituous liquors, which they place on the ground, and then call upon *Cutichatun* to receive their offering. They afterwards retire to a little distance, and *Cutichatun* is supposed to take what he pleases of the oblation; the remainder is resumed by the votary for his own use. Once a year each man makes such an offering. They have no kind of priest.

Jan. 3. Face of the country.

3d *January.*—I accompanied Mr. Coward to *Nadavanuru*, where he has another office *(Cutchery).* The country naturally resembles that through which I came yesterday; but, being at a greater distance from the inroads of the *Moplays*, it is better cleared and cultivated. The roads are very bad, as is usual in *Malabar*, and in general are narrow paths on the little banks which separate the rice plots. The state of *Malabar* has always been such, that travellers wished to be at a distance from inclosures, or strange houses, which afforded too many lurking places for the assassin.

By the way we crossed a river, which runs into the sea at *Ellore*, and which, at all seasons of the year, is navigable for canoes as far up as *Nadavanuru*. CHAPTER XIII. Jan. 3.

Owing to the heaviness of the rains, the low lands near the *Ghats* of *Tamarachery* and *Curumbara Nada* are overwhelmed with water. On this account a great part of them gives only one crop in the year, and is called *Macrawulla*. The seed for this kind of land is sown between the 12th of June and the 13th of July, and transplanted in the following month. It is of a particular kind called *Vaydacundum*, that thrives in deep water, and does not ripen until January. It is said to produce only from four to six fold. That ground only which produces two crops in the year is here called *Ubayum*. The seed for the first crop is sown dry-seed between the 11th of April and the 11th of May, and reaped between the 14th of September and the 14th of October. The seed for the second crop is sown between the 14th of July and the 13th of August, and is transplanted as soon as the first crop has been cut. It is reaped between the 12th of January and the 9th of February. The cultivators acknowledge only four or five seeds produce for the first crop, and three or four for the second. The soil is excellent and well watered, but is, no doubt, badly cultivated. One of the native officers of revenue says, that ten seeds may be considered as a good crop, and six as a poor one. This agrees with the account of the *Moplays* at *Tamarachery*; and, making the average produce eight seeds, agrees also with that given by Mr. Smee for the inland districts in the southern division. The seed for an acre being $2\frac{414}{1000}$ bushels, the average produce of one crop will be $19\frac{44}{100}$ bushels; and both crops, after deducting seed, will leave for consumption 34 bushels an acre; which is almost adequate to support two persons, at the allowance granted to the slaves.

Another cast of *Malayala*, condemned to slavery, is called in the singular *Catal* or *Curumbal*, and in the plural *Catalun* or *Curumbalun*. They reckon themselves higher than the *Churmun*, *Polian*, or *Parian*. Customs of the *Catalun*, or *Curumbalun*.

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The deity is worshipped by this cast under the name of *Malya-dêvam*, or the god of the hill, and is represented by a stone placed on a heap of pebbles. This place of worship is on a hill, named *Turuta Malay*, near *Sivapurata*, in *Curumbara Nadu*. To this place the *Catalun* annually go, and offer their prayers, coco-nuts, spirituous liquors, and such like, but make no sacrifices, nor have they any kind of priest. They pray chiefly for their own worldly happiness, and for that of their relations. The spirits of good men after death are supposed to have the power of inflicting disease, and are appeased by offerings of distilled and fermented liquors, which the votary drinks after he has called upon the spirit to take such part of them as will pacify his resentment. The dead bodies of good men are burned; but those of bad men, in order to confine their spirits, are buried; for, if these escape, they are supposed to occasion great trouble. It is not customary, however, to make any offerings to these evil spirits. This cast has no hereditary chiefs; but disputes are settled by the elders, who never inflict a severer punishment than a mulct of some *Betle-leaf*. When a *Catal* is about 16 or 18 years of age, he marries. He first obtains the consent of the parents of his mistress, and then applies to his master, who gives him 16 *Fanams*, or 4 *Rupees*. Out of this he gives four *Fanams* to the girl's mother; he purchases a piece of cloth for herself, and with the remainder he gives a marriage feast, which concludes the ceremony. A man turns away his wife whenever he pleases, and she may also desert him whenever she is tired of his company. In either case, she returns to her parents, and waits until she can procure another husband. An occasional slip with a strange man is looked upon as no great matter: sometimes the husband gives his fickle companion a drubbing, and sometimes he turns her away; but in general he bears his misfortune with much patience, being afraid that if his wife left him he should not get another. All the children belong to the mother's master, and of course follow her in case of separation. Until they are able to work, they are maintained

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at the expense of the husband's master, provided there ensue no dispute violent enough to occasion divorce. This cast eat meat, but decline carrion. They can lawfully drink spirituous liquors.

The *Waunamars* of *Pyurmalay*; and history of *Malayala*.

4th *January*.—I accompanied Mr. Coward to *Andulay Conday*, in *Pyurmalay*, as it is commonly called; but its proper name is said to be *Eivurmalay*, or the five hills. Here we were met by Captain Osburne, the collector of the adjacent districts. *Eivurmalay* formerly belonged to three *Nair* chiefs, called *Waunamar*, or rulers; and their descendants enjoy the title, with one-fifth of the revenue, in the same manner as do the descendants of the *Rájás*. The tradition here is, that *Cheruman Permal* divided the whole of *Malayala* among four families, who were called *Rájás;* but whose dominions were afterwards subdivided amongst innumerable petty chiefs, and younger branches of the original families. These four families, however, always maintained a superiority of rank, which they at this day retain. They are, the *Coluta-nada Rája*, commonly called *Cherical;* the *Venatra*, or *Rájá* of *Travancore;* the *Perumburupa*, or *Cochi Rájá;* and the *Ernada*, or *Tamuri*. The dominions of the latter were originally very small. The same story concerning them is told here that was related at *Calicut*. In process of time the *Curumbara* family, who seem to have been a branch descended from the *Cochi Rájás*, seized on a part of *Coluta-nada* which included all the northern parts of *Malayala*. Among other usurpations, this family seized on *Eivurmalay*, of which they were afterwards stript by the ancestors of the three *Waunamar*. Another *Kshatriya* family called *Cotay-hutty (Cotioté)*, who seem to have been descended from a younger sister of the *Curumbara Rájás*, seized on another portion of *Coluta-nada* lying between *Tellichery* and the *Ghats*. The *Curumbara Nada Rájás* became extinct in the *Malabar* year 954 (1778-1779), five years after *Hyder* invaded the country. As that prince had not then expelled the *Rájás*, the *Cotay-hutty* family laid claim to the country that belonged to their kinsmen. Soon after the elder persons of this house fled to *Travancore*, where they

Cotay-hutty Rájá.

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remained until the conquest of the province by the English. On this event they returned, and the eldest then alive was put in immediate possession of *Curumbara Nada.* The Company could not give him the original territory belonging to his family, as it has ever since been in possession of the fourth *Tamburan* of the house, who assumes the title of *Cotay-hutty Rájá,* and is in actual rebellion. The claims of this family to the fifth part of the revenue of *Curumbara Nada* do not seem to rest on strong grounds; but they have been acknowledged by the Company.

Coin supposed to have been made by *Parasu Ráma.*

I here procured a ring, in which is set a gold *Fanam,* said to have been struck by *Parásu Ráma* when he created *Kérala.* Such *Fanams* are procurable with some difficulty, for they are considered as relics. All other coins fall very short of this in pretensions to antiquity; as, according to the fables of the *Bráhmans, Parasu-ráma* created *Kérala* above 800,000 years ago.

Face of the country.

The country through which I passed this day is nearly like that which I saw yesterday. The rice grounds are extensive, and the hills which enclose them are by no means steep. The cultivation is extremely slovenly, and most of the fields seem to contain as much grass as rice. The roads are execrable.

Estimate of the population of the southern and middle districts of *Malabar.*

Two of the districts under Mr. Coward are included in those valued by Mr. Smee; and two are not: being now, therefore, about to leave the part of the country in which I have received the assistance of that gentleman's industry and abilities, I shall extract from his report, some general statistical observations relative to the southern and middle divisions of *Malabar,* exclusive of the hilly tract which is above *Manar-ghat.* From its appearance on the map, this country, surveyed by Mr. Smee, may contain about 3300 square British miles; but the maps are as yet so erroneous, that this calculation may be very far from the truth. It requires 1,652,619½ *Porays* of rice seed, and its average produce is 11,910,237 *Porays;* which, deducting seed, leaves 10,257,617½ *Porays* for consumption. A considerable quantity of this is exported from the

districts toward the south; but about an equal quantity may be imported in the middle parts of the province. Unfortunately, Mr. Smee, in all his statements, reckons by the common *Poray* of each village, almost all of which are different; so that it is impossible to state with exactness the quantity of seed or produce. The most prevalent *Poray*, especially in the southern districts that produce most rice, contains 9 *Puddies* of $79\frac{471}{1000}$ cubical inches each; and if we take this as the average, we shall have the quantity of seed about 552,560 bushels, and the quantity of consumable produce 3,429,800 bushels; which, at one ninth of a *Poray* daily for every person, a fair allowance, is adequate to support in plenty a population of 252,924 persons. I have already stated, that Mr. Smee's survey seems not to have included a considerable portion of Mr. Wye's circle; but making every allowance for that, and for many of the inhabitants who live on other food, the population ought not to exceed 330,000, or 100 to a square mile.

Having obtained from Mr. Coward very satisfactory answers to the queries which I proposed to him in writing, I shall unite these to the accounts received on the spot, relative to the situation of the districts which are placed under his management.

Proportion occupied by different kinds of land.

Mr. Coward, supposing his whole district to be divided into twelve equal portions, estimates, that in *Curumbara Nada*,

I. Three parts are *Paddum* field, or low ground, capable of being irrigated and cultivated for rice.

II. Four parts are *Parum*, or high ground, fit for plantations.

III. Three parts are *Parum*, or high ground, partly cultivated with dry grains, and partly over-run with trees and bushes. Much of it fit for plantations.

IV. Two parts are steep, rocky, or so covered with forests, that they could not be reclaimed but at a great expense.

Tamarachery. Four parts are of the first kind.
Four are of the second kind.

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Tamarachery.	Four parts are of the third kind.
	Two are of the fourth kind.
Pycnada - -	$3\frac{5}{10}$ parts are of the first kind.
	$4\frac{8}{10}$ parts are of the second.
	$2\frac{4}{10}$ parts are of the third.
	$1\frac{3}{10}$ part is of the fourth.
Eivurmala -	Four parts are of the first kind.
	Four parts are of the second.
	Two parts are of the third.
	Two parts are of the fourth.

Forests.

The forests are of very little value. From *Tamarachery,* about two or three hundred *Teak* trees may be annually procured, and an equal number of the *Viti,* or black-wood. These, with a little *Cassia* and wild ginger, form the only valuable produce of the forests, [illegible] charcoal as serves to supply with fewel 13 iron forges, and these are not constantly wrought.

Rice-grounds.

The rice grounds Mr. Coward estimates at 65,160 *Porays;* of which 62,266 are *Ubayum;* 1319, included in the revenue accompts, are now waste; and 1451 have been so long waste that they are not included in the assessment. This small proportion, of 2770 waste to 65,160 cultivated, seems to me not at all conformable to the appearance of the country, nor to the accounts of the natives. Mr. Coward thinks the land-tax so high that it impedes agriculture; which in my opinion cannot be by any means the case, at least with the rice grounds. Even allowing the grain to be sold at the cheapest season, the cultivators do not allege that this tax amounts to more than one seed.

Gardens or plantations. Mode of assessment.

The gardens or plantations are taxed by an assessment, which was made partly in the *Malabar* year 969, and partly in 972. The mode said to have been adopted was as follows. An estimate was formed, of what each garden actually produced. From this was deducted, what was considered as a reasonable allowance for the

cultivator, and the remainder was called *Patom*, or rent. The average value of this was fixed upon as the amount of the land-tax: as, however, the tax had formerly been imposed by a certain rate for every tree producing fruit, the accompts were made up at so many fruitful trees, as at the former rate of taxation would amount to the value of the rent *(Patom)*. By this it would appear, that, provided the valuation had been made exactly, the interest of the landlords in these plantations was entirely annihilated: this, however, is not alleged to have been the case. In coco-nut gardens, for instance, an allowance of 30 per cent. on the gross produce was made on account of worm-eaten nuts; which allowance exceeds the damage, and affords a considerable income to the landlord. How far the allowance made to the cultivator was an adequate reward for his trouble, and for the expense which he incurred in forming the plantation, I cannot say. It is alleged, that it is not even adequate to the former, and that on this account many gardens have been deserted.

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Articles raised in the plantations.

In the plantations here, according to the account given me by the principal cultivators, there are reared coco-nut and *Betel-nut* palms, pepper vines, and *Jack* trees, that pay revenue to government; and *Mangoes*, plantains, *Yams*, and a little turmeric, ginger, and *Sapan-wood*, that are exempted from taxes.

Coco-nut.

Although this is an inland country, where of course coco-nut palms do not thrive so well as near the sea, yet they occupy by far the greatest part of the high land. This in general is much neglected, and a few coco-nut trees are scattered upon the lower parts of the hills, and are surrounded by bushes and weeds without the least attention. When the young seedlings are transplanted, they ought to be manured with salt, ashes, and leaves; and the garden ought afterwards to be ploughed twice a year, once at the beginning, and once at the end of the rainy season. At each ploughing, the manure should be repeated to young trees; old trees require nothing but a few ashes. The trees ought to be planted so that the

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extremities of their branches may just meet, which will be found to be between 30 and 40 feet from each other. In low grounds, the coco-nut palm begins to give fruit in eight years, and in four years more arrives at perfection, in which state it continues for 20 years. It lives about 100 years, decaying gradually until 70 or 80 years old, after which it annually gives only one or two nuts. On higher soils it does not arrive at perfection until the fifteenth year. The higher the situation, and the poorer the soil, the longer is the tree in coming to perfection, continues a shorter time in vigour, and dies sooner. Good trees, in a good soil, will every month produce a bunch of twenty nuts. The trees, after they have produced nuts two years, are employed for the extraction of palm wine, and yield juice for five seasons. For the next five years the nuts are allowed to ripen; after which, for two or three years more, the juice is again extracted. The *Tiar* pay one *Fanam* a year for every tree, good or bad, from which they are allowed to extract juice. The men who gave me this account did not complain of any loss by their coco-nut trees.

Blackpepper,

The pepper raised in Mr. Coward's districts is not very considerable in quantity, as it does not exceed annually 20 *Candies* of 640 lb. The vines that are raised on the *Mango* and *Jack* trees live longest, and produce the most. Those reared on the *Betel-nut* palm, or the *Muruca (Erythrina)*, are short lived and produce little. Two years ago (*Malabar* year 974), owing to a failure in the usual quantity of water, the pepper crop failed, and a great part of the vines perished. This is very distressing to the owners of the gardens; no new assessment having been made, and the old tax being demanded. Accidents of this kind being frequently unavoidable, is another strong reason why a fixed rate of assessment should not be exacted on a production so uncertain.

Betel-nut, Areca.

In this district *Betel-nut* palms are pretty numerous; but in *Malabar* I no where observed separate plantations of them, such as are to be seen in other parts of India. In *Malabar* they are planted,

promiscuously with other trees, in the gardens which surround the houses of the natives. The manner of raising them is as follows: Between the 10th of February and the 11th of March the ripe seed is spread on some straw, in a corner of the house, and is then covered with another layer of straw. This, for 15 months, is once a day sprinkled with water. Between the 12th of May and the 11th of June of the following year a plot of ground is dug, and manured with cow-dung and ashes. In this are placed, at a span's distance from each other, the seeds, which have then sprouted a little. Over the nuts is put as much mould as just covers them; while the sprouts are allowed to project from the earth, and are covered with a layer of leaves and herbs. When there is no rain, they are watered once a day. In two months the leaves and herbs have rotted; the bed must then be freed from weeds. In this nursery the young palms remain from one to two years, and in May and June are transplanted. They are lifted with much earth round their roots, and are placed in pits nine inches deep, and nine inches in diameter; and when they are transplanted, dung is put over them. Over this are placed leaves; and, for two or three years, water must be given once a day when it does not rain. While the trees are young, they ought to be manured three times a year, and the garden should be twice hoed. Afterward, two ploughings annually are sufficient. When a plantation is made, in which coco-nut trees are placed at 40 *Adies*, or lengths of the foot, from each other, three *Betel-nut* palms may be set between every pair. If we take 40 *Adies* at 36 feet, an acre would plant 33 coco-nut, and 100 *Betel-nut* palms, and leave interstices for *Mango* and *Jack* trees, on which the pepper vine may be raised: but in *Malabar* such economy of ground is seldom observed. The *Betel-nut* palm begins to bear in from eight to ten years, and in twelve or thirteen arrives at perfection. In this state it continues about twelve years, and then gradually decays until about the fiftieth year, when it dies. Whenever the leaves are

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observed to wither, and become brown, it is cut. The stem is very useful in building; and the best bows used in the wars of *Malabar* are made of it. The crop season is between the 14th of August and the 14th of October. The average produce of a palm is 300 nuts. These are delivered to the *Moplay* merchants, as cut from the tree, and are by them prepared for the market. In this country the raw nuts only are used, but some are boiled for exportation. Three or four months before crop season, the merchants advance the price; and, if the planter be not able to make up the stipulated quantity, he is only bound to return the balance of the advance, without interest. This the merchant can well afford; as, for the thousand nuts, he advances from three to four silver *Fanams*, each worth one fifth of a *Rupee;* and, when the husk has been removed, sells the produce at the sea coast for from 7 to 8 *Fanams*. In these districts the distance from water carriage is no where great. The land-tax is nominally one gold *Fanam* for every six trees; but the rental was formed in the same manner as was done with the coco-nuts. If for each palm, as here stated, the average produce be 300 nuts, and the price be three *Fanams*, as is the case this year, the produce of six trees would be worth $5\frac{4}{10}$ silver *Fanams*. The land-tax would amount to a little less than $1\frac{43}{100}$ of a silver *Fanam*, being $26\frac{4}{10}$ per cent. of the gross produce. Mr. Smee, however, makes the average produce only 101 nuts. Six palms, at that rate, would only yield 606 nuts, worth $1\frac{8}{10}$ of a silver *Fanam;* so that the land-tax, were it fairly exacted, would consume 79 per cent. of the produce. Although the *Betel-nut* requires much less trouble to bring it to perfection than the coco-nut, and its culture in *Malabar* cannot be considered as attended with any great expense, yet it is a very precarious article, the tree being much more liable to suffer from drought than the coco-nut palm. Two years ago many of them perished; and it is said, that this is the cause why many of the plantations have been altogether deserted; for, no new

assessment having been formed, the proprietors would have been obliged to pay the old tax for plantations in which a great part of the pepper and *Betel-nut* had perished.

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Garden used as the burying ground.

The *Yams (Dioscorea)*, turmeric, and ginger, are raised in the small inclosure which immediately surrounds the house; and which, in *Malabar*, serves as the family burying-ground.

Plantains, or *Musa*.

The plantain, called *Nayndra valay*, is a considerable article of cultivation, especially in the middle division of *Malabar*. It produces a large coarse fruit, like that which in the West Indies is used for bread. The trees are reared on the higher parts of the *Parum* land, and are planted between the 14th of November and the 9th of February. The bushes are previously cut and burned, and the field is dug with the hoe. In seven or eight months the tree produces fruit, and the crop season continues about 120 days. The stems, as they ripen their fruit, are cut, and the suckers are removed to another field. After this plantain, the ground must lie fallow for three years before it is again fit for hill-rice, *Ellu (Sesamum)*, plantains, or any other such articles. The plantains are cut while green, and are dressed in various ways, to eat with rice; but they never form the common article of diet here, as they do in the West Indies. This fruit is not taxed by government.

Salt.

In Mr. Coward's district there are 111 fields for making salt. These contain 3335 *Cannies*, or evaporating plots; which, according to the manufacturer's estimate that I procured at *Calicut*, should employ 83 families of salt makers, and produce annually 31,740 bushels of salt. Formerly, about a third more ground was employed in this way; and Mr. Coward thinks that the manufacture might be very much increased, there being in his districts a great deal of ground fit for the purpose.

Commerce.

The exports and imports, by sea and land, from and into Mr. Coward's districts in the *Malabar* year 975, ending the 13th September 1800, will be seen by the Tables in the Appendix at the

CHAPTER XIII. end of the Third Volume; which were extracted from the custom-house accompts.

Jan. 4. Population. The houses in Mr. Coward's districts amount to 11,549, of which

142 are inhabited by *Namburis,*
53 by *Puttar Bráhmans,*
4876 by *Nairs,*
2485 by *Moplays,*
1981 by *Tiars,*
2012 by various casts.

The slaves are:

Males under 15 years of age -	1296		
capable of labour -	2679		
old and infirm - -	509		
	——	Males	4484
Females under 15 years of age -	1121		
capable of labour -	2534		
old and infirm - -	453		
	——	Females	4108
	Total slaves -		8592

The number of inhabitants are:

Men - - -	16,644
Women - -	17,222
	33,866
Deduct slaves -	8592
Remainder of free persons	25,274

If we divide these by the number of houses, we shall find that, on an average, each contains but a very little more than two persons; which seems to me inexplicable. The quantity of rice that

is raised in the country is by no means adequate to the consumption of the inhabitants; and grain is imported, both by sea, and from the country above the *Ghats*. CHAPTER XIII. Jan. 4.

The number of ploughs amounts to 3137.

The animals of the ox kind are as follow: Stock.

Carriage oxen - -	481	
Plough oxen - -	4906	
Male calves - -	2488	
		8885
Cows - - -	7036	
Cow calves - -	3124	
		10,160
Total of ox kind -		18,945

Buffaloes:

Males full grown -	719	
young - -	164	
		883
Females full grown -	397	
young - -	130	
		527
Total buffaloes -		1410

The great proportion of male buffaloes is owing to importation from above the *Ghats*.

In these districts the weavers looms are 281, which are not adequate to supply the wants of the inhabitants, of whom all the higher orders are clothed with foreign manufactures. Manufactures.

5th *January*.—Having taken leave of Mr. Coward, I accompanied Captain Osburne to *Kutiporam*. This was a long stage, and, owing to the badness of the roads, was very fatiguing. At *Kutiporam* there is no village; but it is the principal residence of the Jan. 5. *Cadutinada Rájá.*

CHAPTER XIII. Jan. 5. *Cadutinada Rájá*, commonly called the *Rájá* of *Cartinaad*. This chief is an active man, in the vigour of life; and, having much influence among the *Nairs*, it has been thought expedient to allow him to collect the revenues of the country that formerly belonged to his ancestors. Hitherto he has faithfully discharged this trust; but his influence renders the power of the magistrate very trifling, either in matters of police or in judicial affairs. In fact, the *Rájá* is now, what all the others wish to be; he pays a tribute to the Company, and will continue to do so regularly, so long as he is afraid of their power, or requires their protection; but he has absolute authority in his dominions, and, I am told, exercises it without much attention to justice.

Revenue. The revenues are collected by a late valuation, which was formed upon the supposed actual produce. One third of this was allowed to the farmer *(Cudian)*; of the remainder six tenths was taken for the land-tax, and four tenths were allowed to the landholder.

Face of the country. *Eyvurmalay* is separated from *Cadutinada* by a fine river, which at all seasons is navigable up to *Caipert*, a little below the line of my route. From *Andulay-Conday* to this river, the country through which I passed is in a bad state. The greater number of the rice fields seem to be waste, and much of the higher land is overgrown with trees or long grass. *Cadutinada* is better cultivated, and is naturally a rich country, containing a large proportion of rice ground; but the grain produced in it is not adequate to the consumption of the inhabitants; and an importation takes place both from the southern parts of *Malayala*, and from *Mangalore*. The plantations are very numerous, and tolerably well kept. The higher parts of the hills are much overgrown with wood; which the *Nairs* encourage, as affording them protection against invaders.

Cardamoms. In the hills which form the lower part of the *Ghats* in *Cadutinada*, and other northern districts of *Malayala*, are certain places that naturally produce cardamoms. The following is the account of

these, which the most intelligent persons here gave; for the state of the country at present does not admit of my getting an account on the spot. These hills are all private property; and the places that are favourable for cardamoms are thickly covered with bushes, and contain many springs and little streams of water. Such places having been searched, and some scattered plants of the cardamom having been found, between the 10th of February and the 10th of April all the bushes and some of the large trees are cut down, so as to cover the ground with branches. In the rainy season many cardamom plants spring up to about nine inches in height. Next year, between the 12th of May and the 11th of June, all the bushes that have sprung up are again cut. During the rainy season of this year the plants grow one cubit high. In the third year, at the same season, the bushes are again cut, and the plants become two cubits high. They flower at the time when the bushes are cut, and between the 14th of September and the 13th of November, produce a very small crop. In the fourth year the bushes are again cut; and, where the cardamom plants happen to grow too near one another, they are removed to proper distances at the flowering season. This year they are about three cubits high, and produce a full crop. When two or three capsules on each spike are ripe, the proper time for cutting has arrived; and the fruit stalk *(scapus)*, which comes out from the ground near the stem that supports the leaves, is cut close to the earth. All those which are cut in one day are removed to a hut, where the capsules that are not quite ripe are picked off from the spikes. If allowed to be quite ripe, they are immediately eaten up by a kind of squirrel, called *Malay Anacota*. It is supposed, that the seed, which passes through this animal as it leaps about, is the means by which the plant is scattered throughout the country, and grows wherever there is a favourable soil. The capsules, having been collected from the fruit stalks, are for three days and nights exposed in the open air, to receive the sun and dew. They are

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Cassia lignea. Here, as well as in all the hills of *Malabar*, the *Cassia lignea* is very common. It is the same with the *Lavanga* of *Ani-malaya*, and is greatly inferior to the *Cassia* of *China*. The tree has a strong resemblance to the *Tézpát* of Bengal; but not having seen the flowers, I cannot determine how far they agree or differ in species. It is, no doubt, the *Laurus Cassia* of Linnæus.

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Customs of the northern *Nairs*.

Having procured some of the principal *Nairs* that attended on the *Rájá* in a visit which he made to Captain Osburne, and a sensible *Namburi* who seemed to be much in favour with that chief, I consulted them on the differences that obtain in the customs of the *Nairs* who live north from the *Vay-pura* river, from those that are observed in the southern parts of *Malayala*. The female *Nairs*, while children, go through the ceremony of marriage, both with *Namburis* and *Nairs*; but here, as well as in the south, the man and wife never cohabit. When the girl has come to maturity, she is taken to live in the house of some *Namburi* or *Nair*; and after she has given her consent to do so, she cannot leave her keeper; but, in case of infidelity to his bed, may be punished with death. If her keeper have in his family no mother nor sister, his mistress manages the household affairs. The keeper, whenever he pleases, may send his mistress back to her mother's house; but then, if she can, she may procure another lover. A man's house is managed by his mother so long as she lives. When she dies, his sister comes for the fifteen days of mourning. She afterwards returns to her lover, and remains with him until he either dies or turns her away. In either case, she returns to her brother's house, of which she resumes the management, and brings with her all her children, who are her brother's heirs. A *Nair* here is not astonished when you ask him who his father was; and a man has as much certainty that the children born in his house are his own, as an European husband has; while these children are rendered dear to him by their own caresses, and those of their mother, who is always beloved, for otherwise she would be immediately dismissed; yet such is the perversity of custom, that a man would be considered as unnatural, were he to have as much affection for his own children, as for those of his sister, which he may perhaps never have seen. Of all known manners of conducting the intercourse between the sexes, this seems to be the most absurd and inconvenient. That prevailing in the southern parts of *Malayala* avoids all the domestic unhappiness

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arising from jealousy, or want of continued affection; but that here, while it has none of the benefits of marriage, is attended with all its evils. The division of *Nairs* here is also different from that in the south. There are here six tribes, who by birth are all properly soldiers. The first in rank are the *Adiodi;* the next are the *Nambirs;* and then follow four tribes of equal dignity, the *Shelatun*, the *Cureuru*, the *Nalavan*, and the *Venapulun*. After these, as in the south, follow the different tribes of traders or artists, who, although allowed to be *Nairs*, and true *Súdras*, are not entitled to the dignity of bearing arms.

Jan. 6. Face of the country.

6th *January*.—I accompanied Captain Osburne to his house at *Vadacurray*, which by Europeans is commonly called *Barragurry*. The road, although not quite so bad as that through which I came yesterday, was very inconvenient for a palanquin, or loaded cattle. The country resembles the other interior parts of *Malabar*, and the little hills and narrow vallies extend close to the sea side.

Fears of the women in the north of *Malabar*.

For some days back, when I passed through among the gardens near houses, I have observed the women squatting down behind the mud walls, in order to satisfy their curiosity by viewing a stranger. When they thought that I observed them, they ran away in a fright. This does not arise from the rules of cast in *Malabar* requiring the *Hindu* women to be confined, for that is by no means the case; but in the interior parts of North *Malabar*, the *Nairs*, being at enmity with Europeans, have persuaded the women, that we are a kind of hobgoblins who have long tails, in order to conceal which we wear breeches *(et qui insuper ut canes in coitu cum feminis cohærent)*. The women and children therefore are much afraid whenever a European appears, which indeed seldom happens. In the southern division, and on the sea coast, we are too well known to occasion any alarm.

Vadacurray, or *Barragurry*.

Vadacurray is a *Moplay* town, on the sea side, at the north end of a long inland navigation, running parallel to the coast, and communicating with the *Cotta* river and some others. From this

circumstance the name of the town is derived. It signifies the *north-side*. The town is a pretty considerable place, and, like the other *Moplay* towns in *Malabar*, is comparatively well built. On the hill above it is a neat little fort, which was constructed by one of the former chiefs of the country, and is now in the possession of the *Cadutinada Rájá*, who has sense enough to perceive that it does not add to his power, and therefore allows it to be in a ruinous state. Jan. 6.

Cadutinada Rájá's family.

Before the *Malabar* year 740, or 156$\frac{4}{5}$ of our era, the ancestors of this chief were *Nairs* of distinction, who then, taking advantage of the weak state of the *Colata Nada*, or *Cherical Rájás*, seized on *Cadutinada*, assumed the title of independent *Rájás*, and, until the Mussulman invasion, exercised the power of sovereign princes. Since the country has fallen into the hands of the English, their title has been allowed, and the present head of the family is in actual possession of almost absolute power. It is owing to this circumstance, I suppose, that I received no answer from Captain Osburne to the queries which I proposed in writing.

A monopoly established by the *Sultan*.

In the *Malabar* year 964, or 178$\frac{8}{9}$, the *Sultan* established a monopoly for all the goods that are usually exported from *Malabar*. The principal *Cotay*, or factory, was placed here; and other dependent ones were established at different parts of the coast, such as *Mahé*, *Coilandy*, *Calicut*, &c. &c. At any of these factories, the goods were received at a certain fixed rate, and paid for by the government, and were afterwards sold by the factors, on its account, to any person who chose to export them. The price fixed on the goods at delivery was low. The factors, for instance, gave 100 *Rupees* a *Candy* for pepper, and sold it for from 150 to 170. The consequence of this was, that the small vessels belonging to the coast were totally given up; and the trade fell entirely into the hands of strangers. Since the trade has been laid open, two vessels only have been built here, and the produce of the country is chiefly exported in vessels coming from *Muscat*, *Cutch*, *Surat*, *Bombay*, *Goa*, and

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Mangalore. The merchants here purchase the cargoes imported by these vessels, and furnish them with others by wholesale.

Jan. 6. Pepper trade.

The account which the merchants here give of their manner of dealing with the owners of plantations, as may be naturally expected, differs very essentially from that which I procured in the interior of the province. This last was confirmed by Mr. Wye, a most intelligent gentleman; but I must state what the merchants say. They make the advances to the proprietor, five or six months before the time of delivery, at the rate of 5 or $5\frac{1}{2}$ *Rupees* a *Tulam*, when the selling price is about 7 *Rupees*; so that their profit is from $21\frac{3}{7}$ to $28\frac{4}{7}$ per cent. They deny that they require the cultivator to make up any deficiencies in his delivery at the market price. When any deficiency happens, they consent to take the same quantity next year, and thus lose a year's interest.

Jan. 7. *Mahé.*

7th *January.*—In the morning I went about seven miles to *Mahé*, which formerly belonged to the French. It is finely situated, on a high ground, on the south side of a river where that enters the sea. The river is navigable with boats for a considerable way inland; and, in fair weather, small craft can with great safety pass over the bar. The place has been neat, and many of the houses are good. Although the situation is certainly better than that of *Tellichery*, yet I think it has not been judicious to remove the commercial resident from that place, while a possibility remains of *Mahé* being restored to the French. In the mean time *Tellichery* will suffer greatly; and I know, from having been there formerly, that during all the fair monsoon, goods may be landed and shipped there with great facility.

Having been disappointed in not finding the commercial resident at home, in the afternoon I went about four miles to *Tellichery*, and was most hospitably received by my friend Mr. Waddel, who had lately come to reside in the fort, or factory.

Appearance of the country.

After entering the lines within which the natives have long enjoyed the protection of an English government, a wonderful change

for the better appears in the face of the country; and the thriving state of the plantations, on the sandy grounds near the sea, show how capable of improvement all the land of that kind in the province really is. The low hills however, all the way between *Vadacurry* and *Tellichery*, approach very near the sea, and leave for plantations a much narrower level than is found in the southern parts of the province. Jan. 7.

8th—10th *January.*—I remained at *Tellichery*, taking an account of the neighbouring country. This having been long the chief settlement of the English on the coast of *Malabar*, and having been now deserted by the Company's commerce, has been rather on the decline; but still the richest natives on the coast reside here, and the inhabitants are by far more civilized than in any other part of the province. They enjoy some particular privileges, especially that of being more moderately taxed than their neighbours. Jan. 8—10. *Tellichery.*

The Portuguese inhabitants, who found here an asylum, when by the violence of the *Sultan* they were driven from the rest of the province, have for twelve or fourteen days been embodied as a militia. They seem to be very fond of military parade, and have already made some progress in their exercises. It appears to me, that they would look very well, and soon become good soldiers, had they decent clothing and accoutrements; but nothing can be more motley or ridiculous than their present undress, for clothing it cannot be called. Native Portuguese.

Tellichery, *Mahé*, and *Durmapatam (Dharma-pattana)*, form a circle under the management of Mr. Strachy, a very promising young gentleman. In the following account, I shall avail myself of the written answers to my queries which he has been so good as to forward. Mr. Strachy's circle.

Mr. Strachy justly considers, that the whole of his circle might be cultivated, either for grain or with fruit trees. No measurement having been made, Mr. Strachy does not venture to estimate the proportion of rice-land to that of high ground, nor to state the State of cultivation.

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quantity of either that is actually under culture. The revenue accompts mention only the neat produce coming in to the landlord for his rice-lands, and this affords no data for calculating the extent. Almost the whole of the rice-lands *(Dhanmurry)* mentioned in the revenue books are cultivated; but there are some lands now covered with grass or bushes that might be converted into rice fields. In the *Tellichery* district a large extent of rice ground has been overflowed by the sea. It might be again recovered by forming banks; or, with an additional expense, might be converted into land for making salt, of which a great deal is at present imported.

Cultivation of rice ground.

Sr. Rodriguez, a Portuguese, and the principal land-holder *(Canumcar)* at *Tellichery*, gives me the following account of the cultivation of rice. What he says may be depended on as correct. The low rice ground *(Dhanmurry)* is here called *Candum, Vailu,* or *Ulpatti,* and is entirely watered by the rain. In the rainy season, none of it is so much overflowed, as to be then unfit for cultivation. The greater part gives only one crop of rice in the year. This is cut between the 14th of September and the 14th of October. Some part gives a second crop of rice, which is reaped between the 12th of January and the 9th of February. After the second crop, the field may be sown with pulse; or, if the first crop only be taken, it will in the same year produce two crops of pulse; but they are industrious farmers *(Cudians)* only, who take the trouble. The greater part are contented with one crop. The ploughings, when two crops of rice are taken, amount to seven; and to five, when one crop is taken. The crops of pulse do not add to the number of ploughings; as that which is given when they are sown serves also for the following crop of rice. At the season for sowing the pulse, the field must be ploughed three times, and twice for each crop of rice. Leaves are not used as a manure. To increase its quantity, some farmers mix the straw of the pulses with the cow-dung; others burn it to procure a greater quantity of ashes.

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Between the 14th of September and the 14th of October the field is manured with fresh cow-dung; between the 12th of January and the 9th of February with ashes; and between the 12th days of May and June with dry-dung and ashes. The fields are not inclosed. Those which annually give only one crop of rice produce from four to seven seeds; which, taking the *Poray-candum* at the *Chowgaut* standard, will make from $9\frac{3}{4}$ to 17 bushels an acre. When this land produces four seeds, it gives to the proprietor one seed as *Varum*, or rack rent; when it produces five or six, it gives $1\frac{1}{2}$; and when it produces seven seeds, it gives two. The pulse pays no rent *(Varum)*. In ground producing two crops, the produce, according to the soil in the early crop, varies from five to ten seeds, or from $12\frac{1}{8}$ bushels to $24\frac{1}{3}$ an acre; in the late crop, from three to five seeds, or from $7\frac{3}{10}$ to $12\frac{1}{8}$ bushels an acre. The rent *(Varum)* varies from two to four seeds, or from $4\frac{7}{8}$ to $9\frac{3}{4}$ bushels an acre. The seed of the pulse is one eighth part of that of the rice, or for an acre a little more than three-tenths of a bushel. The produce is from four to ten seeds, or from $1\frac{3}{10}$ to 3 bushels an acre; and frequently vermin entirely destroy the crop.

There is here a kind of rice called *Cutadun*, or *Orcutadun*, that grows near rivers which are impregnated with salt. Ground that is fit for this kind of rice is called *Caicundum*. If the rains are copious, this produces 15 seeds, or $36\frac{1}{2}$ bushels an acre; but, if the rains are too slight, the excess of salt kills the rice. On account of the repairs that are necessary to be made on the banks which keep out the tide, and which are very liable to be destroyed by rat-holes, the rent *(Varum)* of this ground is only two seeds, or $4\frac{7}{8}$ bushels an acre. It produces no pulse, and only one crop of rice annually.

Ponna land.

The hill-lands that have been cleared are called *Parumba*, as in the south; but there are certain hills that are covered with woods and bushes, and called *Ponna*. The natural produce of these is of no value; but once in ten years the bushes are cut and burned.

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The ground is then hoed, and sown with a kind of rice called *Coi-willa;* along with which are intermixed some *Tovary (Cytisus cajan)* and cotton. In fact, this cultivation is the same with the *Cotu Cadu* of *Mysore;* and is said to be that which is chiefly used in the interior parts of *Cherical* and *Cotay-hutty;* that is to say, in the northern parts of *Malayala,* where the cultivation of the vallies is much neglected. This kind of land pays four tenths of the produce as rent *(Varum),* of which one half is equal to the *(Negadi)* land-tax.

Modun, or hill-rice.

The accounts which Sr. Rodriguez gave, and those transmitted by Mr. Strachy, differ wonderfully. Mr. Strachy says, that in *Tellichery* no *Modun* rice is cultivated; while Sr. Rodriguez says, that the *(Parumba)* high land annually produces a crop of this grain, and that the soil would be ruined were it allowed to lie fallow, as is done to the southward. The abundance of manure procurable at *Tellichery* seems to be the reason of this difference. In December or January the *Parumba* land is ploughed thrice. In the beginning of the rainy season it is ploughed a fourth time, sown, and then ploughed twice more. Before the seed is sown it is manured. This ground pays as rent *(Varum)* one fifth of the produce.

Plantations.

Mr. Strachy says, that, under the trees of plantations, a kind of rice called *Wainoky* is sown, and, together with it, *Ellu (Sesamum), Pyro* (legumes), and *Shamay (Panicum miliare).* Of this circumstance I heard nothing while on the spot.

Mr. Strachy thinks, that in *Tellichery* plantations occupy one half of the high *(Parum)* land; in *Durmapatam* one fourth; and in *Mahé* one third.

Black pepper, *Piper nigrum.*

The cultivation of pepper being much more extensive in the northern parts of *Malabar,* than in the middle or southern divisions, with the assistance of Sr. Rodriguez I took the following account of it from some of the chief *(Canumcars)* tenants.

Cultivation.

The pepper vines are raised on a great variety of trees; but the one in most common use is the *Murica,* or the *Erythrina Indica* Lamarck. It would grow equally well on the *Mango (Mangifera*

indica) or *Jack* (*Artocarpus integrifolia*); but these require a long time to come forward. The manner of forming a plantation of pepper, upon the *Murica*, is as follows. The ground is fenced with a mud wall, and must be levelled into terraces, if that has not previously been performed. Between the 14th of July and the 13th of November, dig the ground with a hoe, and set in plantain trees, at the distance, from each other, of 12 *Adies*, or lengths of the foot. Then between the 10th of February and the 11th of March, at 60 *Adies* from each other, plant branches of the *Murica*. These branches should be from 6 to 12 feet long; and, until the commencement of the rainy season, they must be watered. Between the 11th of May and the 10th of June the vines are planted: of doing which there are two ways. Some people take 6 or 7 cuttings, each a cubit in length, and put them in a basket, with their upper end sloping toward the tree. The basket is then filled with earth, and buried in the ground at the foot of the tree. Between the 14th of October and the 15th of November the earth round the basket is dug; and, as a manure, dry leaves and cow-dung are put round the vines. Some people, again, plant the cuttings round the tree without any basket. It is said, that the basket prevents many accidents to which the young shoots are liable; so that of those which have this protection much fewer die, than of those which have it not. Whichever manner of planting the shoots may have been adopted, there is no difference in the after-management. During the dry season, for three years after planting, the vines must be watered, in favourable soils once in three days, in dry soils every other day. Between the middle of October and that of November they must be manured, and tied up to the tree until they be six feet high, after which they are able to support themselves. After the third year the plantains are dug up; and twice a year, from the 14th of October to the 15th of November, and from the 14th of July to the 13th of August, the whole plantation must be hoed, and dry leaves put as a manure round the roots of the vines. In four or five

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years the vines begin to produce pepper; in the sixth or seventh year they yield a full crop, and continue to do so for twelve or fourteen years, when the *Murica* dies, and must be replaced by a new branch and new vines.

The pepper may be cultivated, exactly in the same manner, against branches of the *Canyara*, *Ambai*, and *Pula*.

Nux vomica.

The *Canyara* is the *Strychnos nux vomica* of Linnæus, which in *Malabar* is one of the most common trees. Its branches are apt to fail striking root. If raised from the seed, it will live to a great age, and thrive on any soil; but it requires eight years to arrive at such a size as to be fit for supporting the pepper vine.

Tree called *Ambai.*

Having never seen the flower, I do not know to what genus the *Ambai* should be referred. It is reckoned the worst of any tree used for supporting the pepper vine. On its bark it has many knots, that prevent the vine from adhering, for this plant grows up like ivy. The *Ambai* grows from seed very slowly, but it lives long.

Bombax.

The *Pula* is a *Bombax caule aculeato, foliolis septenis.* Sometimes the branches are planted, and at others the seed is sown. In this case, before the vine can be planted, it requires six or seven years to grow, but it lives long.

Once a year all these trees are pruned, the side branches being lopped.

Jack and *Mango* trees.

Jack (Artocarpus integrifolia) and *Mango (Mangiferà indica)* trees are not much used here, being too slow of growth; but the pepper raised on them is equal, both in quantity and quality, to that raised on the *Murica (Erythrina)*. The *Mango* thrives very well while it supports the pepper vine, but the quantity of *Jack* fruit is diminished. These trees are never pruned; but, if they support the pepper vine, their leaves are thinned.

Collecting the pepper.

The pepper vine is liable to be killed by drought, or by hot winds. Between the 12th of May and the 11th of June they flower, and between the 12th of January and the 9th of February the fruit is fit for gathering. The berries are not then ripe; but they are

full grown, and hard. The men who collect it go up ladders, and with their fingers twist off the *Amenta*, or strings of berries. They collect the fruit in a bag or basket, and, having placed it on the ground, rub it with their feet, to separate the berries from the *Amenta*. The bad grains or berries having been thrown away, the good ones are dried on mats, or on a piece of ground purposely made smooth. For three days they are spread out to the sun; but every night are gathered, and taken into the house. The drying on mats is by far the best manner; as 15 *Edangallies*, dried in that way, will weigh a *Tulam* or *Maund;* while 16 *Edangallies*, dried on the ground, will weigh no more. A man can daily pick from the tree, and cure, from 15 to 20 *Edangallies*, according to the abundance of the crop. A man will therefore, on an average, reap half a *Tulam* a day; and, as the drying and rubbing out of the grains is frequently performed by children, with their assistance he may collect one *Tulam*. A prudent man, who does not receive advances for his pepper, can sell it at from 5 to 8 *Rupees* a *Tulam*, or from 100 to 160 *Rupees* a *Candy* of 640 lb. Last year they got 6 *Rupees*. As a man's wages cannot, at the utmost, be estimated at more than a quarter of a *Rupee*, the expense of harvest cannot possibly exceed one-twelfth of the value of the pepper.

Purchase by the merchants.

Those proprietors who require advances six months before delivery, never get more than sixteen *Fanams*, or 3⅕ *Rupees*. If they receive the advance four months before delivery, they can get eighteen silver *Fanams*, or 3⅗ *Rupees:* so that the merchant, this year, for six months advance, had 87½ per cent. profit, and for four months advance a profit of 66⅔ per cent. In the bond it is declared, that if there be any deficiency in the delivery, it must be repaid at the market price. If the owner of the plantation be not able to pay this, as indeed must be almost always the case, he in the first place gets abusive language from the merchant, and is then obliged to give a fresh bond with interest, to be paid in rough rice, at the rate of an *Edangally* for every silver *Fanam*, which is at the annual

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rate of 20½ per cent. Some easy merchants are contented with an interest of 10 or 12 per cent. in cash. This bond contains a mortgage, either on the borrower's plantations or on his rice ground; and by the forfeiture of such bonds a large proportion of the landed property has fallen into the hands of the *Moplays.*

Kitchen-gardens.

Yams and other roots, greens, and vegetables for family use, are raised in the pepper plantations. The stem of the *Yam (Dioscorea)* is always allowed to climb upon fruit *(Jack* or *Mango)* trees; the natives having a fancy that, in order to procure large roots, it is necessary to have a large supporter for the stem.

Manner of leasing plantations.

The following is the manner in which the landlords *(Jenmcars)* here let their plantations. When a landlord delivers over the plantation to the farmer *(Cudian)* an estimate is formed of the real produce of the *Nall Ubayum*, or of the four kinds of taxable trees. The coco-nuts are valued at 10 *Rupees* a thousand, the *Betel-nuts* at two-fifths of a *Rupee* a thousand, the *Jack* fruit at two *Rupees* a hundred, and the pepper at four *Rupees* the *Tulam* or *Maund.* Out of this the landlord *(Jenmcar)* makes an allowance for keeping up the fences. The remainder is the *Patom*, out of which the land-tax is paid. This estimate is written in the *Patom muri*, or *Patom olla*, that is to say, the lease, which stands good for four or five years, and then a new inspection is made. It is evident, that the only land-tax which could with justice be collected on plantations, ought to rest on a similar repeated inspection: which can never be done by any extensive government without either most enormous defalcations, or without incurring an enormous expense. The consequence of this manner of levying a tax is, that, the valuations being seldom made, the tax becomes very unequal. Some plantations, having been by accident increased, pay very little; while others, having met with injurious accidents, become of no value, and are entirely deserted. By this means it is alleged, that, ever since the land-tax has been imposed, the plantations have been in a gradual state of decay.

The natives would be very desirous of paying their tax in pepper,

at 120 *Rupees* a *Candy* of 640 lb., which is considerably cheaper than the price that the Company has usually given for it. They would be very unwilling to pay any tax on garden ground by measurement.

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State of the cultivators.

The farmers *(Cudians)*, whether cultivating rice ground or plantations, according to Mr. Rodriguez, live very poorly, although they get almost four-fifths of the grain, and at least one-third of the produce of the taxable trees. They mostly labour with their own hands, there being few slaves. The hired servants, who are chiefly *Tiars*, work only from half past six in the morning until noon, and get as daily wages $2\frac{1}{2}$ *Edangallies* of rough rice. All the afternoon they labour for themselves. The *Edangally* containing 108 cubical inches, a man by half a day's work, allowing one-seventh of his time for holy days, can gain $39\frac{1}{4}$ bushels of grain. Although the *Cudians* may therefore live in a very inferior condition to an English farmer, it is impossible that they should live scantily; while a day labourer, by working only half of the day, can procure so much grain.

Tax on rice-land.

The *Negadi*, or tax on the rice lands, amounts here to 25 per cent. of the *Varum*, or rent. All that the Company exacted at first was ten per cent.: but while Mr. Boddam was chief, the Company, finding the expense of their establishment heavy, proposed to reduce it to a mere factory, and to allow the inhabitants to defend themselves in the best manner they could. On this, the people, terrified at becoming subject to a native authority, consented to give 25 per cent.; and during a siege that ensued soon after, assisted with great courage in the defence of the lines; for the regular troops were a mere handful.

Plantations.

The following is the return of the plantations under Mr. Strachy.

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	Productive.	Not productive.	Total.
Coco-nut palms	42,903	32,230	75,133
Betel-nut palms	6,594	14,270	20,864
Jack trees - -	3,306	5,755	9,061
Pepper vines -	7,930	9,599	17,529

Stock.

The stock of animals in these three districts is as follows:

Animals of the ox kind:

Cows - - -	1126	
Oxen - -	1192	
Calves - - -	812	
	——	3130

Buffaloes:

Male - - -	29	
Female - - -	59	
Young - -	8	
	——	96

The ploughs are 410; for which there are 1221 working cattle.

The Slaves are,

Males young - - -	38	
working - -	36	
old - - -	17	
	——	91
Females young - -	28	
working - -	33	
old - -	9	
	——	70
		——
Total -		161

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Freemen.

The houses are 4481.

Of which there are inhabited,

By Portuguese - - -	438
Mussulmans - -	868
Namburis - - -	9
Puttar Bráhmans - -	16
Rájás - - -	2
Nairs - - -	276
Tiars - - -	1888
Mucuas - - -	258
Natives of *Karnata* - -	119

Customs of the *Mucuas*.

The *Mucua*, or in the plural *Mucuar*, are a tribe who live near the sea-coast of *Malayala*, to the inland parts of which they seldom go, and beyond its limits any way they rarely venture. Their proper business is that of fishermen, or palanquin-bearers for persons of low birth, or of no cast; but they serve also as boatmen. The utmost distance to which they will venture on a voyage is to *Mangalore*, which is between twenty and thirty miles beyond the boundary of their beloved country. In some places they cultivate the coconut. In the southern parts of the province most of them have become Mussulmans, but continue to follow their usual occupations. These are held in the utmost contempt by those of the north, who have given up all communication with the apostates. Those here do not pretend to be *Súdras*, and readily acknowledge the superior dignity of the *Tiars*. They have hereditary chiefs called *Arayn*, who settle disputes, and, with the assistance of a council, punish by fine or excommunication those who transgress the rules of the cast. Some of the *Mucuas* marry, which ceremony consists in a feast without any religious rite. In this case, the marriage can only be dissolved on account of the woman's infidelity. They have another kind of marriage called *Parastri*, in which the man and woman, whenever they please, may separate; and the children always go

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along with their mother. The *Mucuas* can eat all kinds of animal food, except beef; and may lawfully drink intoxicating liquors. They are all free, and a few of them can read accompts. They have no *Guru*, nor *Puróhita*. The deity of the cast is the goddess *Bhadra-Káli*, who is represented by a log of wood, which is placed in a hut that is called a temple. Four times a year the *Mucuas* assemble, sacrifice a cock, and make offerings of fruit to the log of wood. One of the cast acts as priest *(Pújári)*, but his office is not hereditary. They are not admitted to enter within the precincts of any of the temples of the great gods who are worshipped by the *Bráhmans;* but they sometimes stand at a distance, and send their offerings by more pure hands. They seem to know nothing of a state of future existence; but believe in *Pysáchi*, or evil spirits, who inflict diseases, and occasion other evils. A class of men called *Cunian* are employed to drive away the *Pysáchi.* They bury the dead.

Customs of the *Cunian*, or *Cunishun.*

The *Cunian*, or *Cunishun*, are a cast of *Malayala*, whose profession is astrology. Besides this, however, they make umbrellas, and cultivate the earth. In many other parts of India, an astrologer, or wise man, whatever his cast may be, is called a *Cunishun.* The *Cunian* is of a very low cast; a *Namburi*, if a *Cunian* come within 24 feet of him, must purify himself by prayer and ablution. A *Nair* is defiled by his touch. The *Cunian* possess almanacks, by which they inform the people of the time for performing their ceremonies, the proper time for sowing their seed, and the hours which are fortunate or unfortunate for any undertaking. When persons are sick, or in trouble, the *Cunishun*, by performing certain ceremonies in magical squares of 12 places, discover what spirit is the cause of the evil, and how it may be appeased. Some *Cunian* possess *Mantrams*, with which they pretend to cast out devils *(Pysáchi)*. These *Mantrams* are said to be fragments of the fourth *Véda*, which is usually alleged to be lost. Very few are possessed of this knowledge, which is looked upon as of the most awful nature. The

Cunians pray to both *Vishnu* and *Siva*, and sacrifice fowls to all the *Saktis*. In *Panupa* is a temple of *Chowa*, the goddess of the cast. The *Caricul*, *Pújári*, or priest of this goddess, is a *Cunian*, and his office is hereditary by male descent. The sacrifices to *Chowa* are performed by the washerman, who cuts off the animal's head. The *Caricul* gets all the offerings made to *Chowa*, and every family gives annually at least one silver *Fanam*. The *Cunian* give *Dharma* to the *Bráhmans*; but that sacred order will neither receive their *Dána*, nor read prayers (*Mantrams*) at any of their ceremonies. Some of the *Cunians* burn, and others bury the dead. The spirits of good men abide with God: those of evil men become *Pysáchi*, and occasion much trouble. Some of them are so obstinate, that they can be expelled only by a pilgrimage to *Kasi*, or *Ramé-swara*. The *Caricul* acts not only as a priest, but as a civil magistrate. He settles all disputes, and can punish, by excommunication, all those who transgress the rules of cast. The *Cunian* are permitted to eat animal food, and to drink spirituous liquors. A man's children are considered as his heirs, yet it is not customary with them to marry. A lover gives 16 *Fanams*, or 3$\frac{1}{7}$ *Rupees*, to the parents of his mistress, and takes her home. When he pleases, he may turn her away; but without his consent she cannot separate; and, if she be unfaithful to his bed, is liable to be beaten. No *Cunian* will cohabit with a woman who has had connection with a man of another tribe; but, if a girl has been sent home on account of an impropriety with a *Cunian*, any one, who is in want of a mistress, thinks this no reflection on her character. In case of separation, the boys follow their father, and the girls their mother.

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Commerce.

The commerce of this circle, which is under the management of Mr. Strachy, is of more importance than any other in the province, especially in the articles in which Europeans deal. On this subject I consulted Mr. Torin, the commercial resident, whom I had an opportunity of seeing at *Tellichery*, and who has sent me very satisfactory answers to the questions which I proposed to him in writing,

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together with various papers tending to throw light on the subject. Among these, a communication from Mr. Brown, now superintendent of the Company's plantation, is peculiarly valuable. I also particularly examined *Maccay*, the nephew of *Mousa*, who is by far the principal merchant of *Tellichery*; and in the following account I adhere to the statement given by him, where I do not see reason, from the other documents in my possession, to make alterations.

Black pepper.

Black pepper is the grand article of European commerce with *Malabar*. Before the invasion of *Hyder*, in the *Malabar* year 940 (176$\frac{4}{5}$), the country now called the province of *Malabar* produced annually about 15,000 *Candies* of 640 lb. The quantity continued gradually diminishing until 959 (178$\frac{3}{4}$), when Colonel Macleod's army came into the province; since which the decrease has been more rapid, and continues every year to augment. A good crop will now produce 8000 *Candies*, a bad one only one half of that quantity. Of this, 4000 *Candies* are produced in the territory of the *Pychi Rájá*, now in rebellion, and of late the seat of a most bloody warfare. The only diminution, I am inclined to think, that has taken place since the province has become subject to the Company has been owing to these disturbances. Mr. Torin states, that the annual quantity produced in the *Pychi Rájá's* country is now reduced to about 2500 *Candies*.

Europeans usually purchase about five-eighths of all the pepper that is produced in *Malabar*; and the price which they give absolutely regulates that of the whole. Since the French have been driven from *Mahé*, the whole of this has of course fallen into the hands of the Company. Annexed are the exports from their warehouses in the following years, as stated by Mr. Torin.

	Candies of 600 lb.	*Maunds* of 30 lb.	lb.
A. D. 1782	86	13	07
1783	132	14	19
1784	2185	10	08

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		Candies of 600 lb.		Maunds of 30 lb.		lb.
A. D. 1785	- -	28	- -	07	- -	04
1786	- -	615	- -	01	- -	05
1789	- -	937	- -	19	- -	08
1790	- -	1148	- -	09	- -	01
1791	- -	2107	- -	05	- -	05
1792	- -	2001	- -	15	- -	17
1793	- -	2499	- -	06	- -	10
1794	- -	2400	- -	00	- -	00 about.
1795	- -	1914	- -	11	- -	23
1796	- -	none.				
1797	- -	4155	- -	04	- -	23 of crop 96 and
		2070	- -	18	- -	07 of crop 97.
1798	- -	4778	- -	09	- -	01
1799	- -	1135	- -	06	- -	01
1800	- -	1145	- -	03	- -	10
In store	-	4067	- -	24.		

Until the capture of *Mahé* in 1793, the greater part of the pepper trade went to that port; but since that event, the Company has, according to *Maccay*, sent annually about 4000 *Candies* to Europe direct, to *Bombay*, and to *China*. The remainder of the pepper is exported chiefly by native traders. The largest quantity goes to the Bay of Bengal; the next largest to *Surat*, *Cutch*, *Scind*, and other ports in the north-west of India, and a considerable quantity goes to the Arabian merchants of *Muscat*, *Mocka*, *Hodéida*, *Aden*, *Mocala*, *Jedda*, &c. The demand from *Seringapatam* was the smallest, and used to amount to about 500 *Candies* a year. The pepper that went to *Coimbetore* came chiefly from the *Cochi* and *Travancore* dominions.

The Company has always made its purchases by a contract entered into with a few native merchants, or in fact for many years almost with one only; that is, with *Chouacara Mousa* of *Tellichery*.

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Seven others have also dealings with the Company; but one of them is *Mousa's* brother, and the others are in a great measure his dependants. In December and January, when the crops are so far advanced that a judgment can be formed of the quantity of pepper likely to be obtainable, the commercial resident assembles the contractors, and a written agreement is entered into with them, settling the price, and the quantity that each is to deliver. At this time, sometimes the whole, and in general at least one half of the money is advanced to the contractors. There is no adequate penalty contained in the contract, to compel the native merchant to a regularity in delivery; and Mr. Torin complains, that from this defect very great inconvenience has at present arisen. The last contract was for 5000 *Candies;* it was entered into fifteen months ago; one half of the amount was paid down, and three months afterwards the remainder was advanced. The whole of the pepper ought to have been delivered within the year, but there is still a deficiency of 1500 *Candies.* This has not arisen from any difficulty in procuring the pepper, to which the contractors were subject; but because they had thus the benefit of the Company's money, and could sell the pepper with advantage to private dealers; while it was easy to foresee that the pepper would fall, and the balance will be paid when the market price will be 120 *Rupees,* while they contracted for it at 130. There is no danger of an ultimate loss of the money advanced to *Mousa,* and some others of the contractors, for they are men of immense wealth. The native merchants, by means of their agents, procure the pepper partly from small traders, and partly from cultivators. All the pepper procured from the southern districts is obtained by means of small traders. From the districts near *Tellichery,* part is bought directly from the cultivators. I have already given an account of the manner in which the traders fleece the poor cultivators; but this of course the traders deny. *Maccay* says, that they receive the full price stipulated for by the commercial resident, and that th eonly benefit which the merchant has, is

that he receives the pepper by a *Candy* of 640 lb. and delivers it by one of 600. He, it is true, receives the money from the Company; but by this he would have only 6¼ per cent. for the trouble of agency, and risk of bad debts. From the prudent cultivators of this neighbourhood, according to *Maccay*, the contractors purchase the pepper at the time of delivery, and their profit consists in buying by the *Candy* of 640 lb., and delivering it by one of 600, which seems fully adequate to their trouble. Risk they have none; for they have either previously received the money, or get it immediately on delivery. To men in more necessitous circumstances, they advance such money as they have received from the Company, at about five or six per cent. lower than the market price, which is about a reasonable profit for their risk: but the cultivators, as I have already said, allege, that the profits of the merchant are much greater. It might be thought, that, by making advances directly to the cultivators, the profits arising to the traders and contractors might be saved to the Company. Mr. Torin, whose experience, local knowledge, and abilities, entitle his opinion to be received with great attention, thinks that this could not be done with advantage.

The pepper, in the state in which it is brought by the cultivators, is received by all merchants as fit for market, and is exported without preparation by every one except the Honourable Company, who at their own expense have it cleaned and garbled. All pepper called *heavy* sells at the same price, although that which is produced in *Callai* and *Cotay-hutty*, is reckoned somewhat better than any other; but there is a *light* pepper, of which about 150 *Candies* are yearly produced in *Chowgaut*, *Panyáni*, and *Tannore*: this is low-priced, and goes chiefly to *Surat*. White pepper is not an article of commerce; a little is occasionally made, and is chiefly given in presents, as a useful medicine.

In *Malabar* the nature of the Company's trade in pepper has undergone three great changes; and by these the conduct of their

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servants ought to have been more regulated than in some instances would seem to have been the case. First, previous to the province having been ceded to the Company, their interest was merely mercantile; it was the duty of their servants to procure the commodity as cheap as possible; and I have no doubt, that in this respect the affairs of the Company were well enough managed. While the French trade was under the control of an exclusive Company, this was easily conducted, it being the mutual interest of the two Companies to join in reducing the price. During this time, according to *Maccay*, the Honourable Company gave in general from 105 to 125 *Rupees* a *Candy*. Once or twice it rose to 135 or 140. When the exclusive privileges of the French Company were done away, and *Mahé* was made a free port for all nations, of course a competition arose; and considerable funds beginning in 1787 to come out to *Mahé*, the pepper began to be enhanced in price, and it had always been nominally higher there than at *Tellichery*, because the French *Candy* of 600 lb. was equal to 654 lb. avoirdupois. This competition had a greater effect on the price at *Mahé* than at *Tellichery*, where, even allowing for the difference of weight, the Company got their investment cheaper than the market price common in other parts of the province. This seems to have been owing to *Mousa's* residing in *Tellichery*, where his property was secure, and to his sacrificing a part of his profits, by selling to the Company a part of his pepper at a lower price than he could have got at *Mahé*. This was an offering made for the security which he enjoyed; as the withdrawing of the military station from *Tellichery* was constantly dreaded, should the Company not derive some peculiar advantages to counterbalance the expense. Secondly, a great change took place in the nature of the Company's pepper trade, by their acquiring the sovereignty of the province, which happened in 1792. Their interest as sovereigns required a total change in the principles by which they purchased pepper; and the higher the price paid by foreigners, who were the principal purchasers, the better for the

Company. Mr. Brown, who then traded at *Mahé* as Danish resident, very judiciously recommended to Mr. Farmer, one of the commissioners, that the Company should confine their trade in pepper within as small a compass as possible; and, in place of endeavouring to get it at a lower rate than the market price at *Mahé*, that they should always give a little more for what they took; and by that means they would not only enrich the province, but increase their revenues. Measures, however, were taken directly in opposition to this sound advice, and, by means of the sovereign authority vested in their servants, the Company procured a small quantity of pepper at a rate considerably lower than the *Mahé* price; but by far the greater part went to that market, and at a lower price than if the Company had gone into a fair competition. A third change has now taken place. The French having been expelled from *Mahé*, the Company became immediately possessed of the whole pepper trade without a rival. As merchants, it was then their interest to lower the price, which was undoubtedly in their power; but as sovereigns their interest was, that the price should not be so low as to injure the revenue, or to discourage agriculture. Mr. Brown thinks that, both considerations being held in view, 150 *Rupees* would have been a fair price. Immediately before the capture of *Mahé*, in July 1793, in order to complete the loading of a ship, the price given for pepper had risen to 220 *Rupees;* and, most unaccountably, Mr. Agnew, the commercial resident at *Calicut*, without attending to the necessary consequences of that event, in the following season contracted for 4000 *Candies* at 200 *Rupees*. The price, however, as was naturally expected, has gradually fallen; and this year, owing to the Company making no purchases, it is much to be regretted that it has sunk to 120 *Rupees*, which is too low to enable the cultivator to thrive, and to discharge the revenue, while he is subject to the present monopoly of native contractors.

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CHAPTER XIII. Jan. 8—10. Sandal wood.

Sandal-wood is not the produce of *Malayala;* but as the greater part of it grows immediately to the eastward of the western *Ghats,* all that is produced toward the sources of the *Cavery* ought to come to *Malabar,* as the nearest sea-coast from whence it can be exported. This sandal wood is of the best quality; and, from its growing in districts not far distant from *Seringapatam,* is commonly called *Pattana,* or town-sandal. Owing to the unsettled state of *Malabar* during the reign of *Hyder,* however, it was more convenient for the merchants to send this article to the eastern coast of the peninsula. *Tippoo* on his accession having prohibited the exportation of this article, all that could be cut secretly was smuggled into the *Coorg* and *Wynaad* countries, and thence conveyed to *Malabar.* The sandal wood of the *Naggar Ráyada* was in a similar manner smuggled to *Rája-pura,* and from thence sent to the *Tellichery* market. The whole quantity then annually brought to *Malabar* for sale varied from 1700 to 2200 *Candies* of 560 lb. The quantity brought from *Coorg,* during the years from 1792 to 1798, amounted to about 12,000 *Candies.* Since the overthrow of *Tippoo,* the quantity brought down has been very small. The *Coorg Rájá* no longer can commit his depredations, and the rebellion of the *Pychi Rájá,* who possesses the *Wynaad,* and the principal passes up the *Ghats,* has thrown the trade back again toward the eastern coast. There can be little doubt, however, that, as soon as the communication is open, *Tellichery* will be the principal mart for the best sandal wood; as *Mangalore* will be for that of the second quality, which grows in the *Naggar Ráyada.*

Before the year 1797 sandal wood was sorted into three sizes. Of the first size, 35 pieces made a *Candy* of 560 lb.; of the second size, 45 pieces; and of the third size, 55 pieces. Since the year 1797 the sizes have been reduced. The first sort now contains 65, the second sort 72, and the third sort 90 pieces. All pieces smaller than these, all rent and knotty pieces, whatever may be their size,

together with cuttings, roots, and the like, are called *Carippu*, and form a fourth sort. The chips which are removed in polishing the logs form a fifth assortment. The first three sorts only are sent to *China*. The *Carippu* is sent to *Bengal* and *Muscat*, but to the former in the greatest quantity. The chips are sent to *Bombay, Cutch*, and *Muscat*.

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The Company during *Tippoo's* government used annually to send from 800 to 300 *Candies* of the first three sorts to *China*. All the remainder was by private traders sent to *Bengal, Bombay, Cutch*, and *Muscat*. The commercial resident, or chief of the factory, makes the purchase from the merchants on the sea-coast for ready money. These have always on hand a considerable stock, as sandal rather improves by keeping in close store-houses.

No deceit can be practised on a person of common skill, in disguising bad sandal wood, so as to sell it for good. None will pass in any of the three sorts, that is knotty or rent; and the darker the colour, and stronger the smell, the better. *Maccay* thinks that the burying of the sandal wood, which the *Coorg Rájá* practised, was done more with a view of concealing it than of improving its quality.

The prices lately given for it by the Company have been as follow:

		Rupees.
1794	1st sort 45 pieces to the *Candy* -	200
	2d ditto 55 - ditto - -	180
1797 }	1st sort 65 pieces to the *Candy* -	150
1798 }	2d ditto 72 - ditto - -	147½
1799 }	3d ditto 90 - ditto - -	145
1800	1st sort 37 pieces to the *Candy* -	148¾
	2d ditto 65 - ditto - -	127

The abolition of the prohibitory laws, in consequence of the overthrow of *Tippoo*, has evidently had a great effect in reducing

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Cardamoms.

the price, and has brought larger sorts to market. The *Carippu* sells from 70 to 100 *Rupees* a *Candy*, and the chips from 12 to 15.

Cardamoms are another branch of trade, which naturally belongs to *Malabar*, although but a small quantity of them is the produce of that country. The usual quantity brought for sale is 120 *Candies* from the following places:

	Candies of 640 lb.
Coorg - - -	40
Wynaad - - -	57
Tamarachery - -	20
Cadutinada, or *Cartinaad* -	3
	120

Other accounts make it as follows:

Coorg - - -	30
Wynaad - - -	65
Tamarachery - -	3
Cadutinada - -	2
	100

About five *Candies*, of a very inferior quality, are procured from *Velater*. It sells only for one half of the price which the others bring. The cardamoms of *Wynaad*, especially those of a place called *Payria*, are reckoned the best, and never sell lower than 1000 *Rupees* a *Candy*.

Any merchant, by looking at cardamoms, can tell the country whence they came. The cardamoms of *Wynaad*, including those also of *Cadutinada* and *Tamarachery*, contain many round, full, white grains, or capsules. Those of *Coorg* have fewer of these fine grains, but they have also fewer black or light ones. The

grains from *Velater* are long, large, thick-skinned, and dark-coloured. CHAPTER XIII. Jan. 8—10.

The Company have not traded in this article since the year 1797, when they sent seven *Candies* to Europe. They have always purchased them by contract from the merchants on the sea-coast. The Company garble the cardamoms sent to Europe. At the last purchase 8 *Candies* of 640 lb. produced only $7\frac{1}{4}$ *Candies* at 560 lb. after the black or light grains had been removed. These bad grains sell very well to private traders, who dispose of them to the Arabs. Private traders never garble their cardamoms. They are exported chiefly to *Bengal, Bombay, Surat, Cutch,* and the different ports in Arabia.

The *Coorg Rájá* generally sells to *Mousa* all the cardamoms which his country produces. Traders who live near the *Ghats* bring those of *Wynaad* for sale, and generally receive part of the price in advance from the merchants on the sea-coast. Owing to the rebellion of the *Pychi Rájá,* this trade has for a year past been at a stand.

The exports and imports during the last three years, from the circle under Mr. Strachy, which is the most considerable for trade of any in *Malabar,* will be seen by the extracts from the custom-house accompts, given in the APPENDIX at the end of the Third Volume. It must be observed, that smuggling is carried on to a very great extent; and, therefore, that the exports in the accompts are greatly under-rated.

Money.

In the northern part of *Malabar,* the most favourite currency is a silver *Fanam,* equal to one-fifth of a *Bombay Rupee.* According to an assay made at *Calcutta,* this *Rupee* contains, at the mint value, rather less than 23*d.* It contains $164\frac{14}{100}$ grains of pure silver. The *Madras Rupee* contains only $163\frac{1}{2}$ grains, but passes here for five silver *Fanams.* As gold is not much in currency, I have, in reducing *Malabar* money to English, made my calculations by the mint value of the *Bombay Rupee;* but it must be recollected in all Indian

CHAPTER XIII. Jan. 8—10. accompts, that a pound of silver will bring more gold there than in Europe, and in exchange with that country passes for much more than its intrinsic value.

In *Malabar*, false coiners are very numerous, and a great nuisance.

The copper coinage in use at *Tellichery* was struck in England, and 10 *Paissas* are always current for one silver *Fanam*. There is another copper coin called *Tarrum*, two of which are equal to one *Paissa*.

Jan. 11. 11th *January*.—Mr. Wilson, the collector of a circle containing the two districts called *Cotioté (Cotay-hutty)* and *Irvenaad*, conducted me to his house at *Cadrur*. This formerly belonged to the *Pychi Rájás*, and was by the *Nairs* reckoned a superb building. It is in the form of a square, surrounding a court, in which there is a well and a small tank. The building is two stories high, but the apartments on the ground floor are very low in the roof. Originally, the only entry was by a ladder to a door in the upper floor; in the lower story the doors opened towards the court, to which some bad stairs also gave access from the upper floor. The apartments of the upper story, although small, were very well aired. The building is of stone, and roofed with tiles. Numerous projecting windows and loop-holes render the whole very capable of defence against musquetry. I breakfasted with Mr. Wilson; and from the answers which he has been so good as to send to my queries I give the following account of his division.

Mr. Wilson's account of his district.

Extent and soil. According to a report which was given in by the surveyors, *Cotioté* is said to contain 312 square British miles, and *Irvenaad* 45. The face of the country resembles that of the other parts of *Malabar*, containing low hills separated by narrow vallies, which are fit for the cultivation of rice. Toward the *Ghats* these hills rise to a considerable height; but the soil almost every where is good; and Mr. Wilson thinks, that not more than one-thirtieth part of the two districts is too steep, rocky, or barren for cultivation. The

long unsettled state of *Cotioté*, and the calamities which it has suffered, would account for its being at present almost waste; but it is said, that, even before these troubles commenced, not above one-fifth part of it was cultivated. Indeed, its calamities are in a great measure owing to its forests having encouraged the natives to make an ill judged resistance against their invaders. *Irvenaad* has not been disturbed, and about four-fifths of the whole are now cultivated.

Forests.

Wherever the ground is not cultivated, there are stately forests; but the produce of these is of very little value. About 20 *Maunds* (640 lb.) of honey, and half that quantity of wax, are annually procurable. *Lac*, and some *Sapan* wood, are to be found; but they are very scarce. The bark taken from the root of a wild *Jack* tree *(Artocarpus)*, called *Cat Pilawa*, is used among the natives as a brownish red dye, but is not exported. A few trees of sandal may be seen, as in other parts of *Malabar;* but their wood has little or no smell, and cannot be sold. The quantity of ginger, and *Casturi* turmeric, growing wild in the forests, cannot be ascertained; that of the last is pretty considerable. The *Cassia* is in plenty. The quantity of timber trees procurable in one year, including *Teak, Poon (Calophyllum)*, and *Viti (Pterocarpus)*, does not exceed three or four hundred. The timber of the other forest trees is not saleable.

Mines.

No metals have been discovered in these districts.

Rice-ground.

In *Cotioté* no attempt has been made to ascertain the extent of *Dhanmurry*, or rice-ground; and by far the greater part of what is fit for the purpose is covered with forests. The *Dhanmurry* of *Irvenaad* contains as much as will sow 150,000 *Edangallies* of seed, and may amount to almost one-third of the country. Mr. Wilson estimates, that 10 *Edangallies* of seed will sow a field of 40 rolls square, each roll equal to 28 English inches: at this rate, the quantity of seed for an acre will be two bushels and a half; the

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Edangally here being the same with that at *Tellichery*, and containing 108 cubical inches. This agrees so well with the proportion of seed required for an acre, as stated by Mr. Drummond, and confirmed by my measurement at *Calicut*, that I have no doubt of its being correct, and that on this subject Mr. Warden and Mr. Wye must have been led into some error. The quantity of seed stated by Mr. Wilson will sow only 3000 acres, even allowing that none of it will produce more than one crop in the year: but a third part of 44 square miles contains 9600 acres; in this account therefore there must be some error. Mr. Wilson states, that of the land fit for producing rice about one-ninth is waste.

Parum land.

In *Cotioté* three fourths of the whole land either is, or might be made, *Parumba;* and about a fourth of this has been once occupied by plantations, among which a little *Ellu (Sesamum)*, hill-rice, and *Pyru* (legumes), are cultivated. If the survey states the extent of *Cotioté* properly, and Mr. Wilson's estimate be right, the plantations amounted to 37,440 acres, and the *Parumba* or hill-land underwoods contained 112,320 acres. There is no reason to suppose this account exaggerated, as *Cotioté* formerly produced about 500,000 *Rupees* worth of pepper, which is more than 13½ *Rupees* for each acre planted; besides all the other produce of these lands, such as *Jacks*, coco and *Betel-nuts*, and ginger, all of which were of considerable value. From this we may judge, were it in a settled state, how valuable the *Cotioté* district might be made; as almost the whole of the remaining 112,320 acres are fit for plantations. On these lands the cultivation of pepper seems to be the primary object. The mode commonly adopted by the natives, Mr. Wilson thinks, is the most advantageous method of cultivating pepper that has hitherto been tried, and is attended with little expense. In encouraging this cultivation, the construction of tanks, to give a supply of water in the hot season, would, Mr. Wilson thinks, be attended with great success. At present, the chief support of

Cotioté depends upon the cultivation of the *Ponna* lands, or those hills that have not been formed into plantations. While at *Tellichery*, I described the manner in which this is done. CHAPTER XIII. Jan. 11.

The *Parumba* or hill-lands in *Irvenaad* amount to about two thirds of the whole, or what ought to be 19,200 acres: of these about one half are now occupied by plantations, one quarter is cultivated with hill-rice and *Ellu*, and one quarter is not cultivated.

Owing to the unsettled state of the country, no estimate has been formed of the number of taxable trees.

Salt.

For what reason I know not, the making of salt has been prohibited; but about 130 *Cannies*, or evaporating plots, might be constructed on inlets of the sea which reach to these districts.

Population.

The number of houses and people is very uncertain. Mr. Wilson states the houses in *Irvenaad* at about 3288, and in *Cotioté* at about 4087. Besides the people inhabiting these houses, there are in the hills and forests several rude tribes; but the whole number of slaves is only about one hundred.

Commerce.

The commerce of these districts consists in selling the produce of the plantations, and purchasing rice, salt, salt-fish, oil, cotton, and cloth. If all the rice-lands were cultivated, there would be more than enough for the present inhabitants; but not a sufficient quantity to support the people that would be required to cultivate all the lands which are fit for plantations of pepper. I consider therefore as improper, any attempt to introduce manufactures. The price of pepper that is given to the cultivator is on an average from 100 to 120 *Rupees* for the *Maund* of 640 lb. The average price which the merchant has again sold it at, for the last five years, may be taken at 150 *Rupees* for the *Maund* of 600 lb.; and he has never advanced so much money as he has received in advance from the Company. The average price of rough rice is 35 *Rupees* for the *Corge* of 42 *Mudies* or *Robbins*, containing 1000 *Edangallies*, or nearly 16*d.* a bushel.

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Jan. 11. Company's plantation, and experiments conducted there.

From *Cadrur* Mr. Wilson was so good as to conduct me to the Company's plantation at *Angaracundy*, where I was kindly received by Mr. Brown, before mentioned. He has the management of the plantation, and collects the revenue of a small district named *Randaterra*, over which Mr. Strachy is the magistrate. The country between *Cadrur* and the river on the banks of which *Angaracundy* is situated, is almost entirely deserted, and overgrown with trees and bushes. It rises into small hills, intermixed with narrow vallies fit for the cultivation of rice; but the extent of these, in proportion to that of the hills, seems to be smaller than in most other parts of the province. The whole seems to have been formerly cultivated; and the hilly ground is less steep than usual in *Malabar*. The road all the way was good even for a cart.

The plantation has of late been much molested by the *Nairs*, and the eastern part of it has fallen into their hands; so that, for the protection of what remains, it has been necessary to station a European officer, with a company of *Sepoys*, at Mr. Brown's house. The *Nairs* are so bold, that at night they frequently fire into Mr. Brown's dwelling; and the last officer stationed there was lately shot dead, as he was walking in front of the house. Many valuable experiments are now carrying on in the plantation, which in an afternoon's walk Mr. Brown was so good as to explain.

Pepper.

From what has been done in the plantation I think it highly probable, that pepper may be raised on almost every part of the hills of *Malabar* where the soil is tolerable, and such occupy at least one fourth of the whole province. Mr. Brown has cleared away the bushes from a considerable extent of land, and planted the vines against every tree that he found growing, and they seem every where to succeed: so that the species of tree upon which the pepper vines are supported is of little importance. Mr. Brown has raised from seed some pepper plants, and thinks that these are more vigorous than such as have been raised from cuttings. He is of

opinion, that the more the vines are exposed to the sun the better. On this account, trees having a thin foliage and straight stems are preferable; such are the *sterculia fœtida* (which at *Mahé* is called *Poon)* and the *Teak*. He says, that the most productive vines in *Cotioté* were planted against *Teak* trees, which had been previously killed, by taking a circle of bark from their stems, and allowed to remain in the ground as dead timber. In ordinary seasons, watering is not at all necessary, but manure of dung and ashes is very serviceable. CHAPTER XIII. Jan. 11.

Sugar-cane. In the lower *Parum*, or rising ground, usually employed for rearing coco and *Betel-nut* palms, the sugar-cane seems to thrive, and does not require watering. The experiment has not yet been carried to a sufficient length to enable Mr. Brown to speak decidedly on the subject; but, if this valuable plant be found to answer in such situations, its introduction will be of immense benefit to the province.

Cotton. *Mauritius* and *Nankeen* cottons both grow in the high lands, and thrive on the highest parts without water. I think that they have been planted too thin; and that, unless the soil will produce a much thicker crop, the value of the cotton will not defray the expense of cultivation. Mr. Brown is trying cotton on the level fields *(Dhanmurry)* as a second crop after rice. I have no doubt of this succeeding; but I think that in *Malabar* nothing should be tried on such ground, which may interfere with raising a larger quantity of grain.

Coffee. On the lower part of the rising ground coffee trees are in a very thriving condition, and may prove a valuable acquisition. As yet, however, they have not arrived at the age when they produce fruit.

Cassia, or wild cinnamon. Mr. Brown has planted a great many of the *Cassia* trees, in hopes of its being improved by cultivation. He will train it up so, that, when cut, the bark will form into neat rolls like cinnamon, or like the *Cassia* of *China*. He expects that it will be then at least equally

CHAPTER XIII. valuable with the last mentioned bark. The tree will undoubtedly thrive in every part of *Malabar*.

Jan. 11. Cinnamon. In the plantation there are some trees of the *Ceylon* cinnamon; but those in *Bengal* seem to be equally thriving.

Rice. Mr. Brown has been making some experiments to ascertain the expense of cultivating rice, and the produce to be expected from any given extent of land. Owing to the inroads of the *Nairs*, some of his experiments have altogether failed. He gives me the following account of the one that has proved most satisfactory; which I detail, because the subject is of the utmost importance. "The soil is of a middling quality, of blackish earth and sand. The exposition to water is such, that it can be overflowed at pleasure until the end of January. Its extent is 1½ acre and 9 square-yards. It was laboured in the common *Malabar* way, with little manure and imperfect tillage. On this were sown 90 *Edangallies* of *Cayma* rice, one of the kinds that are reaped in September. It was twice weeded. The produce was only 750 *Edangallies*, although carefully reaped by my own people. I might have had another crop of rice from the same ground, but was prevented by the frequent inroads of the natives. The crop on this field was much inferior in appearance to that in the other parts adjacent, all of which were sown with *Mundom* rice, a species which, although transplanted at the same time with the *Cayma*, does not ripen until the end of January; so that the ground on which it is raised does not admit of a second crop. It is considered, however, that the single crop of *Mundom*, is generally equal to one of *Cayma* and one of *Chitiny* (the name of the rice used for the second crop). Estimating the produce of this field at the usual rate of 35 *Rupees* for the 1000 *Edangallies*, the produce in money per acre was 21 *Rupees*; which, I am convinced, is far below the medium produce of the rice fields in this district." According to this statement, the acre was sown with three bushels, which is somewhat thicker than I have in general found to be the case. The produce is 25 bushels,

worth 2*l.* 0*s.* $1\frac{1}{2}$*d.* If a second crop had been taken, it probably would have been equal to two thirds of the first, giving the total produce of an acre at 3*l.* 6*s.* $10\frac{1}{4}$*d.*, which in India is a very great sum. CHAPTER XIII. Jan. 11.

Plantations.

In his opinion concerning the plantations in *Malabar*, Mr. Brown differs most essentially from Mr. Smee. He thinks that the forming of plantations, and the keeping of them up, are attended with such expense, that the people to whom they belong cannot afford to pay more than one fifth of the produce as a tax to government; and that whenever a tax exceeding this shall be actually levied, the proprietors will allow the plantations to go to ruin. I must confess, that I have not been able to discover any extraordinary expense attending these plantations; while almost every where in *Malabar* there is water carriage for the exportation of the produce. The plantations above the *Ghats*, although all their produce must be sent hundreds of miles by land for a market, pay in general one half of the produce, and yet are reckoned the most valuable property that belongs to the subject; and every man who has money endeavours to lay it out in purchasing or forming plantations: yet this is, no doubt, attended with at least as much trouble as in *Malabar*, and that in a less favourable climate. I have no doubt myself, that if the government take only one half of the produce, by any means that are equable, and not vexatious, the plantations will soon extend all over *Malabar*, where the soil is fit for the purpose; and that the diminution which has taken place in this article of cultivation is owing to the want of a quiet established government, and not to oppressive taxes. The reasons that induce me to think that the planter of gardens can afford to pay one half of the produce, may be seen by referring back to the account of that cultivation which I procured at *Angada-puram.* I by no means think, however, that the half of the produce levied from the planter should be wholly taken by government; the proprietor of the soil, both in justice and policy, is entitled to a share.

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Jan. 11. Changes in the government.

Mr. Brown gives me the following account of the changes that have taken place in *Malabar;* and, owing to his great abilities, and knowledge of the country and its inhabitants, it deserves the greatest attention. I shall only observe, that I do not think he does justice to *Hyder's* character, of which I have a most favourable opinion, founded on the reports of all his former subjects, except those of *Malabar*, who cannot possibly be expected to speak fairly of an infidel conqueror of their country. "*Malabar*," says Mr. Brown, "when *Hyder* invaded it, was divided into a number of petty *Rájáships;* the government of which being perfectly feudal, neither laws, nor a system of revenue, were known amongst its inhabitants. Owing to the quarrels between the different *Rájás*, and the turbulent spirit of the *Nair* chiefs, who were frequently in arms against each other, the state of the country was little favourable to the introduction of order or good government. *Malabar*, however, was then a country very rich in money. For ages, the inhabitants had been accumulating the precious metals that had been given them for the produce of their gardens. *Hyder's* only object, in the countries that he conquered, was to acquire money; and, provided he got plenty of that, he was very indifferent as to the means which his officers took to obtain it. Immediately after the conquest of *Malabar*, vast sums were extorted from its inhabitants by the military officers, and by the *Canarese Bráhmans* placed over the revenues. Of these extortions *Hyder* received a share; and no want of a system of revenue was felt until these sources began to fail. When he found the assets from *Malabar* fall short of its charges, he listened to proposals from the *Rájás* to become tributaries. An estimate of the revenue was made by the above-mentioned *Bráhmans;* who, as many of them were to remain with the *Rájás* as spies on their actions, took care that the estimate should be so formed, as to leave a large sum to be divided between them and the *Rájás*. By this new order of things, these latter were vested with despotic authority over the other inhabitants, instead

of the very limited prerogatives that they had enjoyed by the feudal system, under which they could neither exact revenue from the lands of their vassals, nor exercise any direct authority in their districts. Thus the ancient constitution of government (which, although defective in many points, was favourable to agriculture, from the lands being unburthened with revenue) was in a great measure destroyed, without any other being substituted in its room. The *Rájá* was no longer, what he had been, the head of a feudal aristocracy with limited authority, but the all powerful deputy of a despotic prince, whose military force was always at his command, to curb or chastise any of the chieftains who were inclined to dispute or disobey his mandates. The condition of the inhabitants under the *Rájás,* thus reinstated in their governments, was worse than it had been under the *Canarese Bráhmans;* for the *Rájás* were better informed of the substance of individuals, and knew the methods of getting at it. In short, the precarious tenures by which the *Rájás* held their station, joined to the uncontrolled authority with which they were vested, rendered them to the utmost degree rapacious; and not even a pretence was set up for exacting money from all such as were known to have any. There were no laws; money insured impunity to criminals, and innocent blood was often shed by the *Rájás* own hands, under the pretence of justice. In the space of a few years many of them amassed treasure, to an amount unknown to their ancestors; and had it not been for the dread that they entertained of *Hyder's* calling them to an account for their ill-gotten wealth, their situation under him was better than that which they held before the invasion. The country, however, was daily declining in produce and population; in so much that, at the accession of *Tippoo,* I have reason to conclude, from my own observations, and from the inquiries which I then made, that they were reduced to one half of what they had been at the time of *Hyder's* conquest. But still greater calamities were reserved for the unfortunate inhabitants of this country in the

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reign of the *Sultan*. During the government of his father, the *Hindus* continued unmolested in the exercise of their religion; the customs and observances of which, in many very essential points, supply the place of laws. To them it was owing, that some degree of order had been preserved in society during the changes that had taken place. *Tippoo*, on the contrary, early undertook to render *Islamism* the sole religion of *Malabar*. In this cruel and impolitic undertaking he was warmly seconded by the *Moplays*, men possessed of a strong zeal, and of a large share of that spirit of violence and depredation which appears to have invariably been an ingredient in the character of the professors of their religion, in every part of the world where it has spread. All the confidence of the *Sultan* was bestowed on *Moplays*, and in every place they became the officers and instruments of government. The *Hindus* were every where persecuted, and plundered of their riches, of their women, and of their children. All such as could flee to other countries did so: those who could not escape took refuge in the forests, from whence they waged a constant predatory war against their oppressors. To trace the progress of these evils would carry me too far. I mention them only for the purpose of showing, how the ancient government of this country was at last completely destroyed, and anarchy was introduced. The *Moplays* never had any laws, nor any authority, except in the small district of *Cananore*, even over their own sect; but were entirely subject to the *Hindu* chiefs, in whose dominions they resided. *Tippoo's* code was never known beyond the limits of *Calicut*. During this period of total anarchy the number of *Moplays* was greatly increased, multitudes of *Hindus* were circumcised by force, and many of the lower orders were converted. By these means, at the breaking out of the war conducted by Lord Cornwallis, the population of *Hindus* was reduced to a very inconsiderable number. The descendants of the *Rájás* were then invited to join the Company's forces; and, when *Tippoo's* army had been expelled from *Malabar*, many *Nairs* returned

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from their exile in *Travàncore;* but their number was trifling, compared with what it had been at the commencement of the *Sultan's* reign.

From this short sketch it is evident, that this province, at the time it was ceded, had really no form of government, and required a new system to be framed for its use. The feudal system was broken; and no other kind of administration was known to the *Rájás* who laid claim to their respective districts, than that which they had exercised or witnessed under *Hyder*, and which was a compound of corruption and extortion. To these men, however, the most unfit that could have been selected, was the whole authority of government over the natives entrusted. Two evils of great magnitude were the consequence of this measure: the extortions and corruptions of the preceding administrations were continued; while the ancient feudal institutions of military service were revived, and all the *Nairs* thereby attached to the different chieftains, and these again to the *Rájás.* Nothing could exceed the despotic rapaciousness of these men, to oppose which there was no barrier; for it is well known, that none of the inhabitants dare complain against a *Rájá*, whatever injuries they may have sustained, assassination being a certain follower of complaint. It is not surprising, that under such rulers agriculture did not flourish, and that the fields now cultivated (which in some districts bear but a small proportion to those that are waste) should yield but very indifferent crops." Such is Mr. Brown's opinion, and it merits the utmost attention.

State of *Randaterra.*

Randaterra, the district of which Mr. Brown collects the revenues, is a fine territory, about ten miles long, and from three to six miles in width. It was long ago mortgaged by the *Cherical* family to the Company; and under their mild government might have been expected to be in a better condition than it really is; but on account of its proprietor it suffered very severely in the wars with *Hyder* and *Tippoo*, and within the memory of man it has been twice

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completely depopulated. Mr. Brown has lately finished a complete survey of this district, of which I here give the result.

The *Turras*, or villages, are 46.

Plantations.

These contained 5210 gardens; of which

1546 are well cultivated,
1264 are imperfectly cultivated,
2340 are in a great measure neglected,
53 are totally neglected, and have gone to decay.

In these gardens are growing the following taxable trees.

Coco-nut palms small - -	28,164	
Ditto young - -	38,765	
Ditto bearing - -	146,552	
		313,481
Betel-nut palms young - -	55,320	
Ditto bearing - -	47,296	
		102,616
Jack trees young - -	13,467	
Ditto bearing - -	6,362	
		19,829
Trees supporting pepper vines young	34,110	
Ditto bearing - -	73,999	
		108,109

The revenue at present arising from these lands amounts to 32,958 *Rupees* (3148*l.* 12*s.* 9*d.*). That which Mr. Brown thinks them able to bear, without discouragement to agriculture, is 31,227 *Rupees*. If this reduction should answer the purpose of bringing the whole plantations into full cultivation, it must be evident that the revenue would then be nearly doubled; and besides, Mr. Brown thinks that all the plantations which have ever been formed in the district did not occupy more than one twentieth part of the land that is fit for the purpose.

The quantity of seed required to sow the rice lands in this district is 36,917 *Edangallies*, which pays as rent 405,175 *Edangallies*, worth 14,181¼ *Rupees*, or 1354*l.* 12*s.* 6*d.*; of which one half should be the land-tax. About a tenth part of this is waste. CHAPTER XIII. Jan. 11. Rice-land.

12th *January*.—I went about ten miles to *Cananore*, where I met Mr. Hodgson, the collector of the northern district of *Malabar*. The roads were execrable. The country through which I passed consists, as usual, of low hills and narrow vallies. The hills inland are covered with bushes, and beautifully skirted with plantations. The rice grounds are extensive, well drained, carefully supplied with water, and few of them are waste. Near the sea, the hills are bare; and wherever the rock would admit the use of the plough, they have formerly been cultivated. At present there is a scarcity of inhabitants. Jan. 12. Appearance of the country.

The proper name of *Cananore* is *Canura*. It was purchased from the Dutch by the ancestors of the *Biby*, who is a *Moplay*. Previous to this the family were of very little consequence, and entirely dependent on the *Cherical Rájás*; but having got a fortress, considered by the *Nairs* as impregnable, they became powerful, and were looked up to as the head of all the Mussulmans of *Malayala*. Various contradictory accounts are given, concerning the manner in which a Mussulman family came to be possessed of a sovereignty in *Malabar*. The most probable is, that they were originally petty *Nair* chiefs, who obtained a grant of this territory from *Cheruman Permal*; and that they afterwards were converted, owing to a young lady's having fallen in love with a Mussulman. The children which she had by him were of course outcasts from the *Hindus*; but, being heirs to the family, it was judged prudent for the whole to embrace the faith of *Mahomet*, in order to prevent the estate from reverting to the *Cherical Rájá* on the failure of heirs. The only male at present in the family is a [illegible]nd, son of the *Biby* or lady of *Cananore*, who manages the affairs of the family during his minority. Th[illegible]cession goes in the female line, as usual in *Malabar*: *Cananore*, or *Canura*.

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the children of the son will have no claim to it; and he will be succeeded by the son of his niece, who is the daughter of his sister. This young lady has lately been married, and in the evening I was conducted by Mr. Hodgson to a grand dinner which was given, on the occasion, to all the European ladies and gentlemen in the place. We were received by the *Biby* in her bed-room, and the ladies were admitted into the chamber of her grand-daughter. The dining-room was very large, and well lighted; and the dinner was entirely after the English fashion. The quantity of meat put on the table, as usual in India, was enormous, and the wines and liquors were very good. The young chief, with the father and husband of the young lady, who have no kind of authority, received the company in the dining-room; but did not sit at table. When dinner was served, they retired to a couch at one end of the hall, and smoked *Hookas*, until the company rose to dance. Appropriate toasts were given, and these were honoured by salutes of guns from the *Biby's* ships. Many fireworks were displayed, and there was music both European and native. The house of the *Biby* is very large, and, though not so showy as some of the *Sultan's* palaces, is by far more comfortable, and is in fact by much the best native house that I have seen.

The territory of the *Biby* on the continent is very small, yet she pays a revenue of 14,000 *Rupees* as land-tax, and the Company receive all the customs. She is allowed to collect all the other revenues; but her profit from thence must be inconsiderable. Most of the *Lacadives* are subject to her; but they are wretched island[s], producing no grain, nor indeed any thing but coco-nuts, *Betel-nut* and plantains. The inhabitants are all *Moplays*, and very poo[r]. They subsist chiefly on coco-nuts and fish, and employ their leisu[re] time, of which they have a great deal, in making *Coir* from t[he] husks of their coco-nuts. Their boats are made of coco-nut stem[s], and their huts are entirely constructed of the materials produced by that valuable palm. The principal exports a[illegible] coco-nuts,

and *Jagory*, with a little *Betel-nut*, and some coral from the reefs with which the islands are surrounded. On the continent this is used for making images, and for burning into quick-lime.

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With so poor a territory, and such a tribute, the *Biby* could not support herself in the manner that she does, without the assistance of trade. She possesses several vessels, that sail to Arabia, Bengal, and Sumatra; and her commercial affairs are so well managed, that she will soon, it is said, recover the losses that she is alleged to have suffered from the rapacity of some British officers during the wars in *Malabar*.

Cananore is situated at the bottom of a small bay, which is one of the best on the coast. It contains several very good houses that belong to Mussulman merchants. Although the disturbances of *Cotioté* have diminished the exports, the trade of the place is still flourishing. The people here have no communication with the *Maldives*, although the *Sultan* and inhabitants of these islands are *Moplays*.

Cananore is defended by a fortress situated on the point which forms the bay. Since the province has been ceded to the Company, it has been strengthened with works after the European fashion, and is the head quarters of the province, for which it seems excellently adapted.

Jan. 13 Appearance of the country.

13th *January*.—I went [illegible] *Matmul*, situated at the mouth of a river, which deriv[illegible]m a town called *Valya-pattanam*, or the *increasing city*. [illegible] he mouth is very wide, and immediately within the [illegible] nto two branches, both navigable in boats to a considera[illegible]ance. The road all the way is good; but the want of a ferry [illegible] capable of transporting cattle to cross the river is a great nuis[illegible]e. Near *Cananore* the whole country consists of low hills, ver[illegible]are, but not of a bad soil. Near the river the country is level an[illegible]sandy, and seems well fitted for the coco-nut; but few of thes[illegible]palms have been planted. The

cc[illegible]

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greater part of it is reserved for rice, poor crops of which are raised with more labour than skill.

When *Cheruman Permal* divided *Malayala* among his chiefs, *Colutanada*, or the northern part of the country, fell to the share of the *Colastry*, or *Colatteory Rájá*. This *Rájá's* family originally consisted of two *Covilagums*, *Colgums*, or houses; but, without any distinction between these, the oldest male of the family was the *Colastry Rájá*, and the highest in authority. The second male in age was called *Tekemlamcur*; the third *Vadacalamcur*; the fourth *Nalamcur*; and the fifth *Anjamcur*. Sometime afterwards the two branches of this family began to struggle against each other for the exclusive possession of authority, and each became again subdivided into separate houses. The *Pally* branch possessed 8 *Colgums*, and the descendants of the ladies residing in each formed at length an equal number of separate houses; which were

Pally }
Cherical } These two united again afterwards.
Palangat, extinct.
Caunachery.
Puduvaly }
Panarayly } extinct.
Chinga.
Tenacod.

The other great branch of t ... n the same manner into three houses.

Odemangalam,
Metale }
Taya } extinct.

Constant wars and dissentions ... e the consequence of this division of the family into separate ... uses, which is looked upon in *Malabar* as a very disgraceful a ... improper thing. The *Pally*

branch was almost always the most powerful; and at length, having put to death most of the *Odimangalam* branch, they deprived the remainder of all authority. No sooner had they done this, than similar disputes arose among the different houses of the *Pally* branch, of whom the *Cherical* house was by far the most powerful. We have already seen, that many other chiefs had taken advantage of the disputes in this family, and had acquired possession of several large portions of *Colutanada*. In the year of the *Malabar* era 907 (*A. D.* 173$\frac{1}{2}$), the *Rájá* of *Ikeri* invaded the *Cherical Rájá* with a large army, and forced every person of the *Colastry* family to fly from the country, and to take refuge in the European settlements. At this time the oldest male of the *Cherical* house was *Udaya Varmá*, who, by the assistance of the English, maintained the war for four years. The army of *Ikeri* had then penetrated to *Dharma-pattana*, with the design of attacking *Cotay-hutty*, or *Cotioté*. *Udaya Varmá*, seeing affairs desperate, called upon the rest of the family to assist him in raising a sum of money to satisfy the enemy; but none of them would consent to give any thing. *Udaya Varmá*, therefore, of himself entered into a negotiation, which terminated in his binding himself to pay by instalments 122,000 *Pagodas* (48,087 *l.* 16 *s.* 9 *d.*), on condition that the army of *Ikeri* should immediately retire. After this, a kind of family compact took place in a very solemn assembly, at which it is, with the usual exaggeration, said that 350,000 *Nairs* attended. The substance of the agreement was, that each male of the family, according to seniority, should succeed to the five titles which belong to the house; but that the whole management of the country which remained in their possession, and the administration of justice, should be vested in the oldest male of the house of *Cherical*: from this circumstance, the remaining dominions of the *Colutanada* family are commonly called *Cherical*. From the time of this agreement, seven chiefs of the house of *Cherical* managed the country, and supported all the *Rájás* of the family. The last of these was *Ráma Varmá*; who being afraid

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that *Tippoo*, then at *Cotayangady* near *Tellichery*, would compel him to become a Mussulman, retired to *Pychi*, and procured a friendly *Nair* to shoot him dead. Although *Ráma Varmá* would not submit to exile, yet, before he had determined on a voluntary death, he had secured a retreat for his sister with her two sons, the only remaining males of the family of *Cherical*. On the day in which he caused himself to be shot, she embarked at *Dharma-pattana*, and went to *Travancore*, the *Rájá* of which country was of the same family. These events happened in the *Malabar* year 964 *(A. D.* 178$\frac{8}{9}$). Soon after the English army entered *Malabar*, and then the late *Uniuma Rájá*, of the house of *Palangat*, who had been skulking in the forests of *Cherical*, came to Mr. Taylor, the chief at *Tellichery*, and called himself *Rawa Varmá*, the *Rájá* of *Cherical*. He entered into an agreement with Mr. Taylor to be restored to the possessions of the family, reserving the discussion of the rights of the other branches of the family to be settled after the war. So long as he lived, he continued to be called the *Cherical Rájá*, and enjoyed all the honours and emoluments annexed to that dignity ; but, on his death *Vira Varmá*, the oldest nephew of *Ráma Varmá* of the house of *Cherical*, was invested with the rights to which he undoubtedly was entitled. The present *Calastry Rájá*, who is the real head of the family, is of the *Chinga* house.

Jan. 14. Appearance of the country.

14th *January*.—I went about ten miles to *Aritta Parumba*, which by the English is commonly called *Artelle*. The road was very good. At first it passed along a narrow tongue of land between the sea and the northern branch of the *Valya-pattanam* river. This space consists of narrow rice fields, separated by banks of sand, which are parallel to the shore, and which probably have been thrown up by the action of the sea. These rice fields are cultivated with much trouble ; for the grass in them springs up with prodigious vigour. The crops which they produce are said to be scanty, owing probably to the miserable implements of the natives being unable to destroy the grass, the vigour of which is a sufficient

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proof of the strength of the soil: the remainder of the country through which I came to-day consisted of low hills, in general of a good soil; but the whole is much neglected, and very few traces of cultivation are to be seen. It is very bare. This want of cultivation is attributed to a want of people, the greater part of the inhabitants having perished in the *Malabar* year 960 (*A. D.* $178\frac{4}{5}$); during the persecution of the *Hindus* by the *Sultan*.

Cantonment at *Aritta Parumba*.

After the province was ceded to the Company, a cantonment of troops was formed at *Aritta Parumba*, and continued there until the fall of *Seringapatam*. The situation, being an elevated dry plain, was finely adapted for the purpose. It is now quite deserted. In sight of it is a hill, which is separated from the continent by salt water creeks, and forms on the coast a remarkable promontory. Our seamen call it Mount *Dilla*. The native name is extremely harsh, and can hardly be pronounced by an European, or expressed by our characters. It is somewhat like *Yeshy Maley*.

Extracts from Mr. Hodgson's answers to my queries.

In the evening I was joined by Mr. Hodgson, then on a tour through the districts under his management. He has favoured me with very distinct answers to the queries that I proposed to him in writing; and from his answers I have extracted the following account.

Cananore district.

The small district of *Cananore* extends no where more than two miles from the glacis of the fort. Its surface is high and uneven; but not so much so, as to prevent the whole from being cultivated once in three, six, or nine years, according to the quality of the soil. A very small proportion of it is *Candum*, or low rice ground.

Cherical district lands absolutely barren.

Of *Cherical* all the eastern parts are one continued forest, intersected occasionally by slips of low rich rice-land (*Chaumurry*), from one to three hundred yards broad. To estimate by a rough calculation, it may with safety be declared, that one third part of *Cherical* is absolutely too steep, rocky, or barren, to admit of any cultivation. In some places there is an amazing extent of surface occupied by a black rock (the *Laterite* before mentioned), with

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occasional clumps of trees where the earth has lodged in crevices sufficiently deep to retain some small degree of moisture.

Wastes.

The present scanty population prevents the remaining two thirds of *Cherical* from being fully cultivated; and the produce of the waste lands is of very little value. In the months of November and April a small quantity of honey and wax is usually procured. There are few, if any, valuable *Teak* timbers procurable. All those near the rivers have long ago been cut, and those remaining at any distance are stunted, and not worth the expense of carriage. A species of wood, called *Ooroopa (Hopea decandra* Buch: MSS.), is by the natives prefered to the *Teak* for building, as being more durable, if preserved from wet, and as having a closer grain. It is common in all the woods of *Cherical;* as is also another tree called *Marathy* (*Marotti Hort. Mal: I,* 65, *Tab:* 36.), which is esteemed for the same reasons. Both are so heavy as to sink in water, and are very hard. In most of the woods of *Cherical Lac* is procurable; but the natives seldom or never take the trouble of collecting it. If a few of the families who are accustomed to the management of this insect were brought from *Mysore,* they would be of great benefit. In the northern parts of *Malayala,* no iron has ever been smelted.

Rice-lands.

In the revenue accompts the low rice land *(Dhanmurry)* is stated to be 34,804 *Edangallies* sowing, of which 6992, or about one fifth part, is waste. The *Varum* or rent of this is said to be 4,394,075 *Edangallies,* or between 15 and 16 seeds. The average produce would therefore require to be at least 18 seeds, to enable the cultivator to live.

From the extraordinary manner in which this circle is intersected by rivers, and the neglected state of the banks and water-courses, owing to the incessant wars and feuds, considerable tracts of rice-land have been inundated, and overgrown with mangroves, and other plants which thrive in salt water. The expense requisite to bring these lands to a productive state is more than the proprietors

could afford, unless they were assisted by government. Some few natives, of more spirit and industry than usual, have come forward and undertaken to repair the mounds of particular [illegible]es, on condition of being exempted from revenue for the space of four or six years. This is, however, scarcely sufficient encouragement, even for those who have money.

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Plantations.

After deducting the third part of *Cherical*, too barren for cultivation, and the small quantity of low rice land, all the remainder, or at least one half of the country, might probably be f[illegible]ed into plantations. The plantations at present rated in the public accompts are 19,048. These are stated to contain the following taxed trees.

Jack trees in perfection	- -	17,[illegible]0	
Ditto young and old	- -	8,6[illegible]5	
			25,965
Coco-nut palms in perfection	-	168,[illegible]	
Ditto young and old	- -	[illegible]69,[illegible]	
			237,875
Betel-nut palms in perfection	-	[illegible]00,757	
Ditto young and old	-	40,535	
			1[illegible]1,292
Brab palms in perfection	- -	265	
Ditto young and old	- -	250	
			515
Pepper vines in perfection	-	45,077	
Ditto young and old	- -	33,363	
			78,[illegible]40

The best soil for forming new plantations is, in general, at a great distance from the sea, and from the *Moplays*, who alone possess any spirit in agriculture.

Ponna cultivation.

The hill-land, not occupied by these gardens, is commonly once in ten or twelve years cultivated after the *Ponna* fashion, as I have

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described at *Telli* The principal grain sown is the hill-rice, on which the in ants of the interior chiefly depend for a subsistence. There also sown some *Shamay (Panicum miliare), Ellu (Sesumum)*, an *ru* legumes); and with every crop raised on this kind of g d some cotton seeds are mixed. Mr. Hodgson thinks that, if enti n were paid to the cultivation of this last article, and suga -cane, much advantage would accrue to the country.

Population and stock.

The num of houses in *Cananore* and *Cherical*, is 10,386, and there are slaves, of whom 2080 are men, 1890 are women, and 700 are c ren. The ploughs are 4994. The cattle of the cow kind 18, of the buffalo kind 11,028.

The e rts and imports by sea and land, for the years 1799 and 1800, in e distri t under Mr. Hodgson's management, will be seen by the tracts from the Custom House accompts, given in the Appe x at the end of the Third Volume.

Panicars, or hired servants.

In *erical* and *Cotay-hutty* there are slaves, chiefly of the *Poliar* and *riar* casts; but the greater part of the cultivation is carried on *Panicar*, or hired men, who are *Nairs, Moplays*, and *Tiars.* Th *Panicars* are at liberty to change their service whenever they pl e, unless they be indebted to their master; and about one half o hem are in that state. They work from morning to noon, when ey are allowed an hour for breakfast. They then work until ening, and all night they watch the crops. The master gives he servant a hut, a piece of cloth twice a year, from 6 to 12 silver *Fanams* (27½ to 55 pence) annually for oil and salt, and a daily allowance of rice, which is larger than that given to the slaves. When the servant is in debt, stoppages from this allowance are made. The *Panicars* are frequently flogged; and, as their masters are not bound to provide for them in old age, or during famine, they seem to be in a worse condition than the slaves. Their wives and children, if they do any work for the master, get wages.

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Jan. 15. Appearance of the country.

15th *January.*—I went about ten miles to *Cavai,* on the north side of Mount *Dilla.* The road at first conducted me over uncultivated hilly land. About three miles from *Cavai* I entered a plain extending to the sea; and, like most others on the coast of *Malabar,* much intersected by salt water creeks, that are a great interruption to travelling, even where they are fordable. I was under the necessity of being ferried over one salt water river. The whole of the plain consists of rice ground called *Vaylu,* and the soil is very poor. Near the sea shore the ground is somewhat higher, is called *Parumba,* and is fit for the cultivation of the coco-nut. A very small part of this is planted, the remainder is quite waste.

Cultivation of the *Vaylu* rice-land.

On the sea-coast, all the way north from *Cananore,* there is much of this poor, level rice-ground, called *Vaylu.* The following is the manner in which it is cultivated. Between the 12th of January and the 10th of April the women cut the long grass, which on such places grows very thick. They then burn it, and the ashes serve for manure. The men then, with a short handled hoe, dig the field to the depth of five or six inches. A few, instead of digging the field, plough it twice; but this is reckoned more expensive. In both cases, the women break the clods with a mallet. Three men, or one plough, can in one day prepare 10 *Edangallies* sowing of land, or 10,000 square feet. Between the 11th of April and the 11th of May, when the first rains come, the unprepared seed is sown broadcast. Previous to this, some allow the field another ploughing; but in general this is neglected. The seed is covered either by another hoeing, or by two ploughings. The crop gets one or two weedings; and the field, previous to its being sown, ought to be well manured with ashes, cow-dung, and leaves. The kinds of rice used for seed vary according to the nature of the soil.

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Chin'nellu
Vachun
Alicanum
Caruma
Chirovatan } These require to have a little clay in the soil, and get two weedings. They ripen in six months, and in a good crop produce ten seeds.

Tawun
Madacun } These grow in almost pure sand; require only one weeding, and ripen in four months. In years that have little rain, they are liable to fail altogether, but in good seasons produce five seeds.

Wortadien - Is sowed in places impregnated with salt. It is allowed one weeding, ripens in four months, and in a good season produces five seeds.

This kind of rice-land produces no second crop of any kind.

On measuring two fields, said each to require 15 *Edangallies* of seed, I found the one to contain 990 square feet for the *Edangally*, and the other 1029. A thousand square feet may therefore be considered as requiring one *Edangally* of seed, and the *Edangally* here contains $91\frac{1}{4}$ cubical inches; so that the seed for an acre is $1,\frac{884}{1000}$ bushel, and the produce, from the same, is from $18\frac{1}{2}$ to $9\frac{1}{4}$ bushels. This is rather thinner sowing than what I found in use at *Calicut*, but the soil here is poorer.

Cavai.

Cavai is a small *Moplay* town, containing 60 or 70 houses. The inhabitants remember, that in the year 925 ($17\frac{49}{50}$) the English had a factory among them. It consisted of a *Pandiala*, or bankshall, which Dutch word has now in general been adopted by the natives of the whole coast. In the year 926 the French built a fort on the south side of the river, where they remained ten years. Afterwards an *Elia Rájá*, as the husband of the *Biby* of *Cananore* is called, built a fort on each side of the southern river. These two forts are now in ruins; and the influence of the *Cananore* family has been entirely superseded by that of *Chouacara Mousa* of *Tellichery*, whose authority extends unrivaled over the *Moplays*, all the way from *Cavai* to *Mangalore*.

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Jan. 15. *Moplays.*

The *Moplays* of the place I found very intelligent and communicative. They did not conceal their hatred to the *Nairs;* and, however much these and the *Namburis* may be discontented, as I believe they almost universally are, their only safety depends on the English retaining the province. If left to their own strength, the *Moplays* would very soon force them to retire into the woods and mountains, to which they were confined when the English arrived.

General appearance of *Malabar.*

Malabar province, which I am now about to quit, may be divided into two portions. By far the most extensive part consists of low hills, separated by narrow vallies; and from the *Ghats* this always extends a considerable distance to the westward, and sometimes even to the sea. These hills, when cleared, are called *Parum*, or *Parumba;* and when covered with trees, which are only cut down once in ten or twelve years, they are called *Ponna* or *Ponnum.* They are seldom of any considerable height, but in general have steep sides and level summits. The sides possess the best soil; and in *Parum* land, in order to prevent the soil from being washed away by the rain, are formed into terraces. The summits in many places are bare; and, especially towards the north, expose to the view large surfaces of naked rock. The vallies, called *Candum* or *Paddum* land, contain in general rivulets that convey away the superfluous water: but in some places, the level is not sufficient; and in the rainy season the grounds are much overflowed. The soil in these vallies is extremely fertile.

The other portion of *Malabar* consists of a poor sandy soil, and is confined to the plains on the sea coast, seldom above three miles wide, and in general not so much. Near the low hills, these plains are in general the most level, and best fitted for the cultivation of rice. Nearer the sea, they are more unequal in their surface, and rise into low downs, which form a kind of *Parum* land admirably adapted for the coco-nut palm. This division of the country is wonderfully intersected by inlets from the sea, which often run for great lengths parallel to the coast, receiving the various mountain

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streams, and communicating with the ocean by different narrow and shallow openings. In other places, where there are none of these salt inlets, the low land within the downs on the coast is in the rainy season totally overflowed; for the fresh water has then no vent, and must therefore stagnate, until it is gradually evaporated. As it dries up, it leaves the ground fit for some particular kinds of rice; and it is probably owing to this cultivation, that these stagnant waters do not impair the salubrity of the air. All *Malabar* may indeed be considered as a healthy country, and one upon which nature has bestowed uncommon advantages.

END OF VOL. II.

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